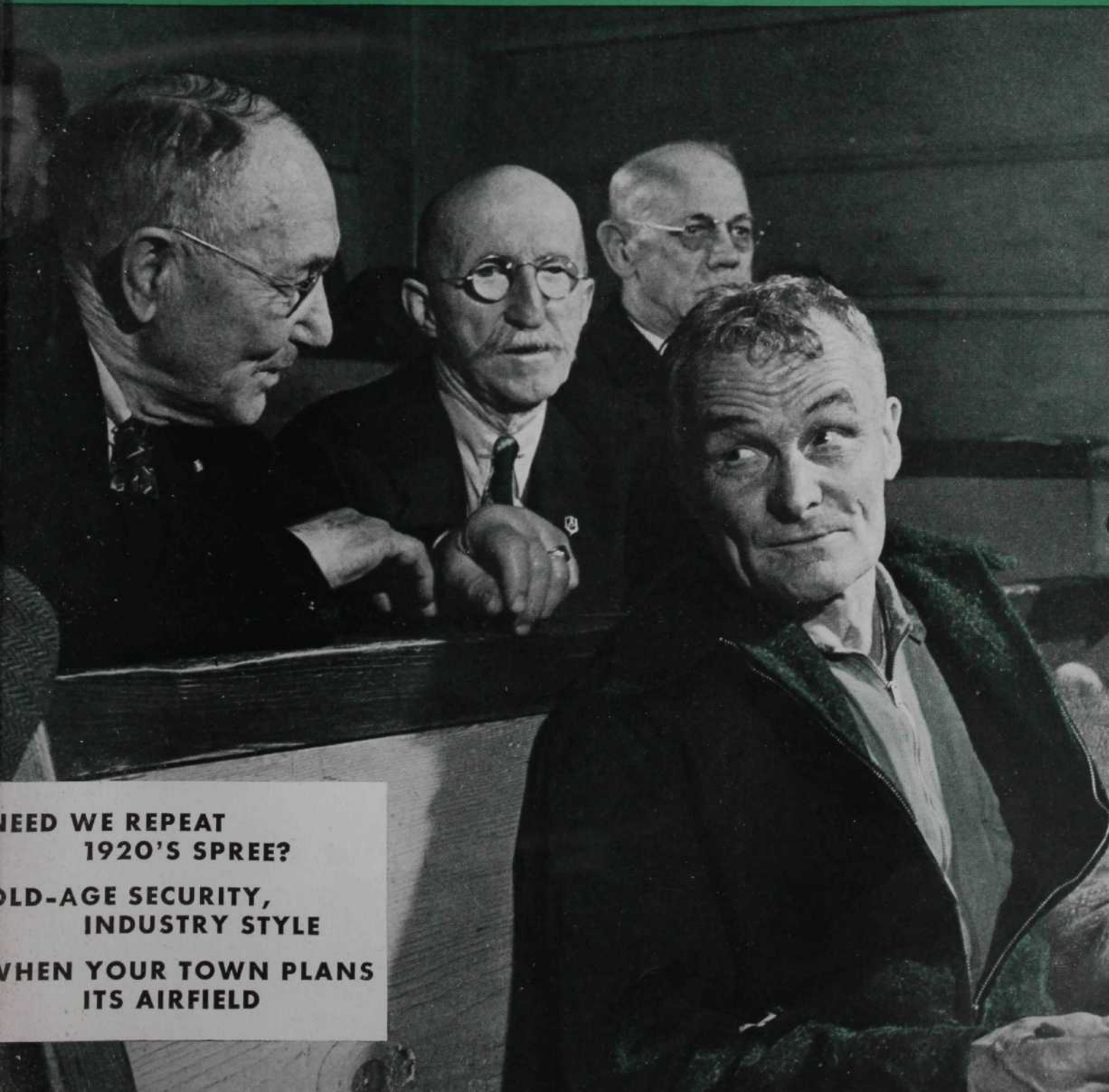


November

NATION'S

1944

BUSINESS



**NEED WE REPEAT
1920'S SPREE?**

**OLD-AGE SECURITY,
INDUSTRY STYLE**

**WHEN YOUR TOWN PLANS
ITS AIRFIELD**



STEEL—and what it takes to haul it!

THE American steel industry, under the stimulus of war, turned out last year a tonnage never before attained—almost 90,000,000 tons.

For the production of 90,000,000 tons of steel, the railroads moved altogether to steel plants about six and a quarter million carloads of raw materials, such as iron ore, coal, limestone, "scrap," manganese, chromite and other special ores.

Two million cars were provided to haul the finished steel away.

Altogether, the railroads moved more than 8,000,000 carloads of material to and from the steel mills!

Yet that is only one of the major wartime jobs being done by the railroads. Any wonder then that traffic on the rails, at times, has been so heavy as to cause delay and inconvenience to passengers? The Pennsylvania Railroad, however, has found traveling Americans very cooperative—they realize the magnitude of the job railroads are doing.

★ 49,238 entered the Armed Forces

★ 369 have given their lives for their Country



Pennsylvania Railroad

Serving the Nation



BUY UNITED STATES
WAR BONDS AND STAMPS

In war or peace
B.F. Goodrich
FIRST IN RUBBER



He matches and always wins


A typical example of B. F. Goodrich development in rubber

MANY trucks have dual tires on the rear — two sets of two tires each — so they can carry heavier loads. Whenever duals are used, however, tire problems increase. The two tires must be spaced just so — not too close, not too far apart. Inflation must be watched carefully. Wheels must not toe in or toe out and the tires in a dual set should have *exactly* the same diameters so that each will carry its fair share of the load. If one tire is worn down, it needs another worn tire for its running mate.

Failure to observe all the necessary rules can easily cut the mileage of dual tires in half. In the picture above a B. F. Goodrich tire specialist of the Conservation Department is matching dual tires with a special measuring stick developed for that purpose. He never mounts a set of duals unless they match perfectly. That's why we say "he matches and always wins."

Under a scientific B. F. Goodrich program, now being used by truck fleets with from 10 to 3200 vehicles, factory-trained tire men take over the complete supervision of tire maintenance.

They have saved hundreds, possibly thousands, of tons of rubber and hundreds of fleet owners have found that this conservation plan saves money for them.

Only a few B. F. Goodrich tire specialists are now available to take over additional fleets. If your company operates trucks, and if you would like to know how this service can be applied to increase *your* mileage, write the Tire Conservation Dept., The B. F. Goodrich Co., Akron, O. 

B.F. Goodrich
Truck & Bus Tires



"RULE BY THE MAJORITY"



WHAT HAS HAPPENED TO THIS AMERICAN PRINCIPLE?

MOST AMERICANS agree that "rule by the majority" is a sound principle—the backbone of our form of government.

Yet thousands of Americans are being penalized because this principle is not being applied to one of our most important industries—motor transport!

Here is the situation:*

- 41 States permit a vehicle length of 45 feet or more.
- 7 States restrict it to less.
- 46 States permit an axle load of 18,000 pounds or more.
- 2 States restrict it to less.
- 32 States permit total weight of 42,000 pounds or more.
- 16 States restrict it to less.

Several of the States in the "majority" group applied the democratic principle of cooperation to

lift hampering restrictions only as a **temporary** wartime measure. Their old laws are still on the statute books and will again be enforced **unless the Legislatures take action.**

A number of States refused to cooperate even in an emergency!

Now, how does this "rule by the minority" penalize you?

Motor transport—trucks and trailers—hauls the food you eat, the clothes you wear and practically everything else you use.

The cost of this hauling naturally depends, to a great extent, on the size and weight of the loads which can be moved.

And size and weight on any given route are controlled by the laws of the most restrictive State on that route!

Thus, a hamstringing law in one State can—and does—force the haulers of your merchandise from other States to cut down to its restrictive level. And hauling costs increase accordingly.

No one will quarrel with the rights of a State to set up any laws its people choose for **its own vehicle owners.**

But, when special tax laws and vehicle restrictions of any individual State affect the living costs of people in other States, that is obviously contrary to the guarantees intended in the Constitution of the United States.

Isn't it a sensible "rule-by-the-majority" solution to (1) permit vehicles which are legal in one State the unrestricted use of the highways in all other States, or (2) bring the standards of the minority States up to the level of the majority?

You can help to accomplish this by asking for such action from Congress or your State Legislators.

HOW DOES YOUR STATE STAND?

Send for the latest copy of "Are the United States United?" A penny post card will bring you this enlightening and most interesting booklet, without obligation—or you can pick up a copy from your nearest Fruehauf Branch.



TYPICAL *Bottlenecks* ON HAUL FROM MILWAUKEE TO ATLANTA

* (Figures based on practical application of size and weight formulae for 3-axle Truck-Trailer)

	49,000 LBS.*	40,000 LBS.	44,000 LBS.	40,000 LBS.*	40,000 LBS.*	44,000 LBS.
GROSS WEIGHT VEHICLE AND LOAD						
VEHICLE LENGTH LIMIT						
	WISCONSIN	ILLINOIS	INDIANA	KENTUCKY	TENNESSEE	GEORGIA
	45 FEET	35 FEET	45 FEET*	45 FEET*	35 FEET**	45 FEET

* Indicates temporary length or weight allowance for the duration only. Lower limits take effect unless war-time measures are made permanent.

** Tennessee allows "over 35 ft." for duration, but no definite figure given.

World's Largest Builders of Truck-Trailers

Service in Principal Cities

FRUEHAUF TRAILER COMPANY • DETROIT 32



"WE'D RATHER
SAY *YES*"

We don't like to tell people that they'll have to wait to get a home telephone. We'd much rather say "yes" to requests for service. That's the way it always used to be.

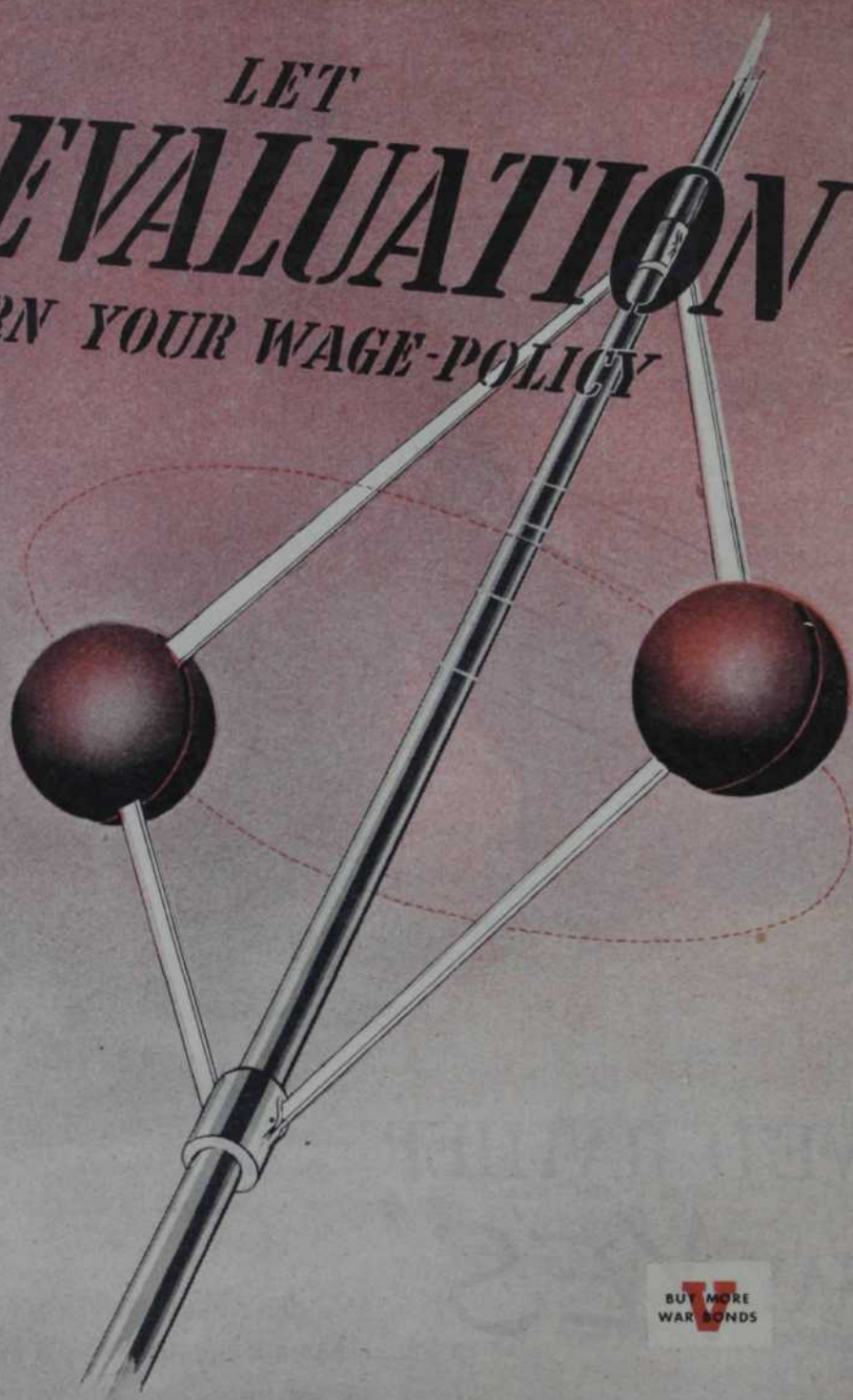
But the needs of war still have first claim on available telephone equipment and on telephone manufacturing facilities and manpower. Delays in filling civilian orders just can't be helped.

All of us telephone people sincerely appreciate your patience and understanding in this war emergency.

BELL TELEPHONE SYSTEM



LET
JOB EVALUATION
GOVERN YOUR WAGE-POLICY



BUY MORE
WAR BONDS

You've Got to Spend Money to Make Money

GEORGE S. MAY COMPANY

The World's Finest Business Engineering

OFFICES IN PRINCIPAL CITIES

Nation's Business



PUBLISHED BY

CHAMBER OF COMMERCE OF THE UNITED STATES

VOL. 32

NOVEMBER, 1944

NO. 11

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Cover photograph by Walter Sanders from Black Star

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**Even SUBS
need AIR FILTERS**

AIR FILTERS UNDER THE SEA would not seem so strange could we describe in detail just *how* they operate and *why* they are so essential to the success of our submarines. Here is just another example of the importance of *clean air* in the prosecution of the war.

Today, dust control is, of course, an essential part of practically every industrial operation. If you have a dust problem, write us for help. There is no obligation.

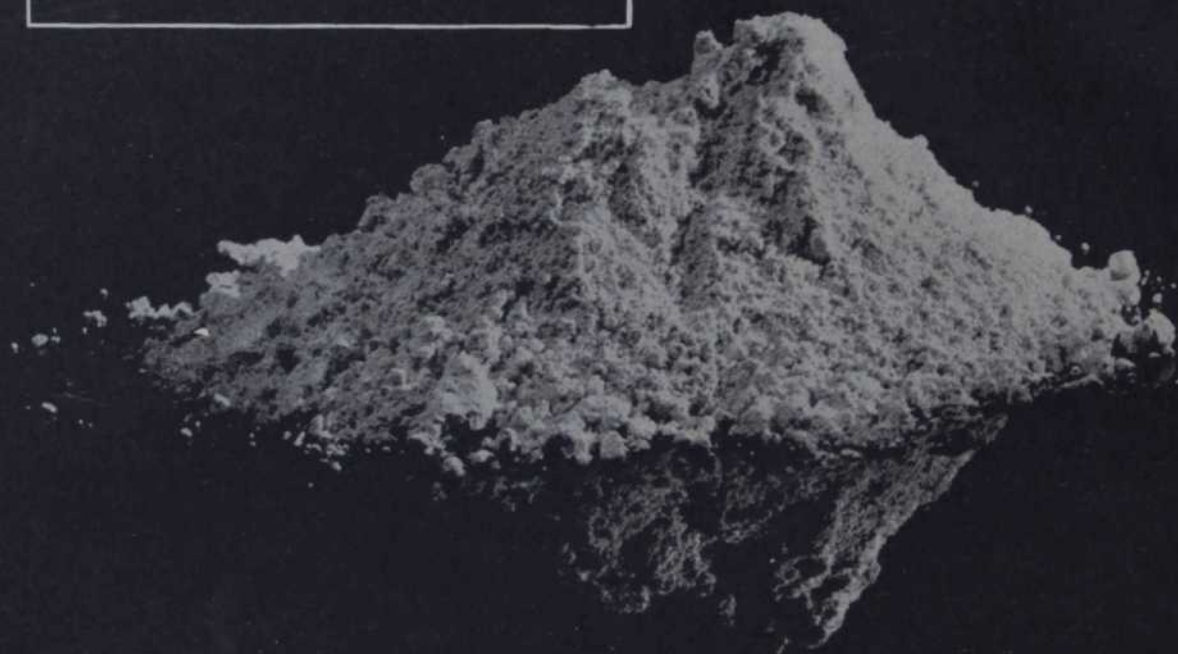
Free literature and engineering data is available on request. Send for your copy of "AAF in Industry"

AMERICAN AIR FILTER CO., INC.
 109 Central Ave., LOUISVILLE 8, KY.
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ENGINEERED DUST CONTROL

POWDER OF LIFE



This is a handful of penicillin.

Yesterday it was amber drops of liquid excreted by *penicillium notatum* or common mold.

Today it is a powder ready to be shipped to some battlefield.

Tomorrow it may save a life.

In a great measure the triumph of penicillin is a triumph for air conditioning and refrigeration.

At Cheplin, Hayden, Lederle, Pfizer and Reichel—mass producers of penicillin—York-built air conditioning systems keep the nurturing tanks at just the right temperature for proper growth.

After the golden drops are extracted from the parent mold, York refrigeration takes over.

The liquid penicillin is frozen enabling evaporation to take place in a high vacuum at temperatures low enough to keep alive the bacteria-killing properties of the drug. The result is the stable powder that you see above.

Although penicillin has been put on a mass production basis, research still goes on. Scientific medicine will certainly discover new types of disease-killing molds and develop new and better methods of production.

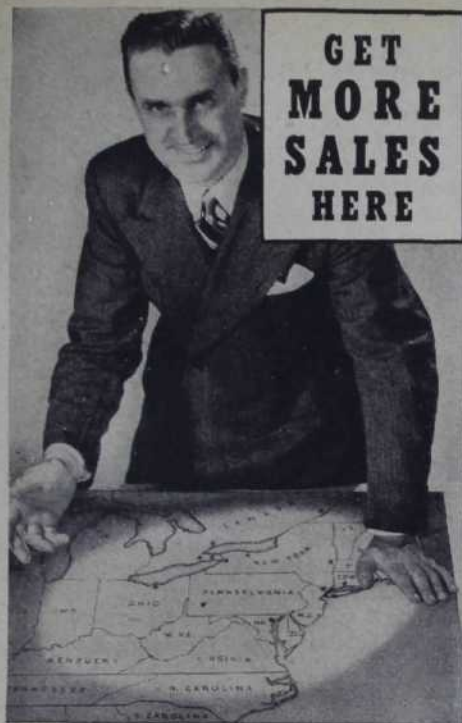
Just as certainly the science of cooling will match their efforts with the necessary equipment to perform the tasks they require.

York Corporation, York, Penna.



YORK REFRIGERATION AND AIR CONDITIONING

HEADQUARTERS FOR MECHANICAL COOLING SINCE 1885



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MORE
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ST. CATHARINES, ONT.

CANADIAN VEGETABLE PARCHMENT CO., LTD.
MERRITTON, ONT.

Through the Editors' Specs

Spurs and false teeth

THE TREASURY Department recently reported that a large quantity of wish-bone-type riding spurs, declared surplus by the Army, was being offered for sale by the Office of Surplus Property. It suggested that these spurs—made of brass or aluminum—would make attractive paper weights, book ends, ash trays and souvenirs.

All this got us to thinking about values. We wondered if a brass spur is worth more as a book end or as a paper weight.

F. C. Crawford once illustrated the idea that *value* is a relative and dubious term. Mr. Crawford, president of the Thompson Products Company, of Cleveland, Ohio, and a maker of aircraft and engine parts, was talking before a Congressional Committee group on the subject of reconversion and the values to be placed upon surplus war materials:

"It's like grandpa's false teeth. You get grandpa a new pair of false teeth with \$5 worth of material and \$200 of labor. Grandpa passes on. You have the disposal job of selling grandpa's teeth. If you put a price on them of \$205 I defy you to sell them. The way to salvage them is to melt them up and sell them for \$5."

Travel will be fun

JUST TO PUT a stamp of authenticity upon the New World, the Pullman-Standard Car Manufacturing Co. has announced that coffee will not spill out of cups in its new diner. Bus lines counter with their own postwar innovations. Greyhound has let contracts for compartment supercoaches. Road tests will be completed early next year, it is hoped. Central doorways will lead to three compartments, one of which will be used for toilet facilities and for sleeper accommodation, or buffet and smoking lounge. Planes and steamships will not be caught napping in this competition to provide comfort and the traveler of the future can probably bank on avoid-

ing many of the hardships of the past. A host of products will ride to prosperity on the travel bandwagon from present guesses.

Reverse inflation

IN THIS WAR, inflation has been less a matter of price than of quality. General Max has held prices stable. What has happened to quality is probably the Number One retail problem.

Happily, the stores are well cleared of those war substitutes so ineptly labeled "Victory Models"—wooden bed springs and baby carriages. The clearances were started a year ago. Substandard merchandise, not in the Victory or *ersatz* class, is what infects inventories now, and conservative estimates put the infection at 50 per cent of total stocks.

After V-E Day, when many of the present controls on materials and manufacturing are removed, merchandise men will scurry around to restore the ordinary standards, and unload inferior goods. By way of preparation, orders now call for shorter delivery periods and expansion of "open to buy" position (which is reserve buying power). This means that retailers will be ready for possibilities.

Right now, of course, there is little use in selling off substandard lines because they can only be replaced with about the same stuff.

How soon will better goods be available after the removal of controls? If manpower is the key in the matter, as many believe, sharp cutbacks in war production ought to make labor plentiful and production bountiful. In that event, competition will soon bring back customary qualities.

It seems worth while noting at this point that quality deflation instead of price inflation ought to by-pass the serious setback suffered after the last war when prices crashed in 1920. Mark-downs may prove heavy this time, retailers agree, but the liquidation of substandard goods should be more gradual

How a Heart-Beat in a Small Town Saves a Life 8000 Miles Away!

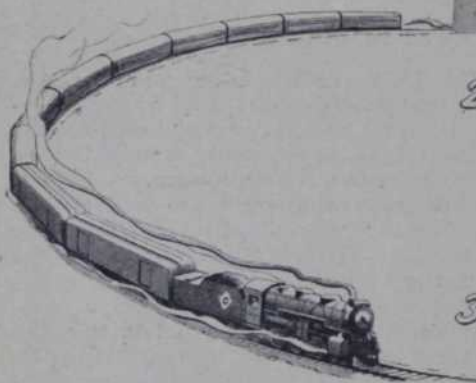


1 American Red Cross mobile units visit small towns periodically—set up blood donor centers in village schools, churches or community houses. Here patriotic Americans voluntarily give their blood to save the lives of our fighting men.



2 Blood is sped to central laboratories, located within 50-100 miles of the service centers—processed into the form pictured here. One pint of blood makes one unit of plasma. The seriously wounded sometimes require as many as 12 units to speed them on the road to recovery.

3 Packed in padded wooden containers and waterproof bags, plasma units are rushed by your railroads to points of embarkation . . .



4 ..loaded on ocean-going vessels or cargo planes—taken into the front lines, where they perform their life-saving miracles.



THE Erie and other American Railroads have carried more than 10 million pounds of blood plasma—nearly 2 million units. This is typical of the many unusual wartime requirements never before handled by your railroads in such tremendous quantities.

With the continued help of the public, shippers, and government agencies, the Erie and other American Railroads will keep vital supplies of every kind rolling to our fighting fronts.



Photo by U. S. Signal Corps

Your Help is Needed

Casualties are increasing! Bigger battles lie ahead. 45 minutes of your time can save the life of an American boy. In large communities go to your local Blood Donor Center. In smaller towns watch for the arrival of a mobile unit.

Erie Railroad

ONE OF AMERICA'S RAILROADS—ALL UNITED FOR VICTORY



and less explosive than a thundering price collapse.

Barometer for salesmen

IF HALF the present plans for new products and new markets materialize, the call for salesmen promises to keep unemployment at a pretty low level. That exaggerates the prospect, of course, but until the shake-down comes and the faulty enterprises fold up, salesmen obviously will enjoy their heyday. A lot of men who never should have tried selling will be in it regardless, to the disadvantage of their employers as well as to themselves.

However, they won't be hired by the Bryant Heater Company, of Cleveland, one of the Dresser Industries. This concern is preparing a standard test for utility companies as well as its own distributors to predetermine whether the job candidate can sell gas heating equipment for home use. To set up the test, staff members of the Personnel Research Institute of Western Reserve University collected hundreds of interviews with men of established selling ability in 15 cities.

Lyle C. Harvey, president of Bryant and also of the Association of Gas Appliance and Equipment Manufacturers, explains that this is believed to be the first attempt on a national scale to predetermine ability to sell a specific line.

As an interesting sidelight on the test, Dr. Jay L. Otis, Director of the Institute, tells of an auditor who made a high score on the tests and will probably change his job after the war for much higher income in a sales career.

"In contrast, a door-to-door necktie salesman rated high on general tests but not on the special aptitudes for selling fairly large items of a mechanical nature such as a gas furnace. He is the type who needs the stimulus given by continuous small successes."

Great day coming

THE DAY when a trade association consisted of a back-slapping secretary, a Washington lobbyist and an annual stag dinner is long past. After the last war the associations saw their real expansion. NRA marked their crest. In the war they have suffered partial eclipse due to suspicious and unfriendly elements in the Government. Their contribution behind the scenes, however, has been a real one as harried members can testify.

With reconversion around the corner, the prevailing thought in many lines is that trade association growth after the last war will not hold a candle to what lies ahead, particularly in the activities which the average organization will carry on. The agenda of the National Lumber Manufacturers Association offers an excellent example. Among the ten steps of its postwar program are completion of an industry-owned research laboratory, establishment of a system of private forestry, development of a wood sugar industry and inaugura-

tion of a lumber export service, and educational efforts.

Promotional activities in the association field received great impulse in the 'twenties when Dr. Cherington expounded his conception of "The New Competition," which was the competition between industries for a share of the consumer's dollar in addition to the competition within a given industry. Some organizations preferred to take their chances with the law and fend off both new and old competition through restrictive devices, but the progressive groups decided upon the expansion which would bring them a larger piece of that consumer pie.

If competition in the postwar period reaches anywhere near the intensity which is now so freely predicted, then the progressive type of association should thrive as never before.

He's a captain now

THE NEW AGE of light metals and plastics will also be the age, it is clear, of personnel and labor relations. The immediate problem is "What to do with the former messenger boy who comes back an Army captain?"

One answer is that the new GI Bill of Rights offers business loans which will induce a lot of boys to start up on their own. Forward-looking trade organizations are already moving to supplement the work of the Army in helping veterans start right.

They are doing this as a measure of self-protection because it won't do to have the country dotted with failing businesses.

This prospect may be exaggerated, incidentally, because, in this fine new Army, the men have certainly been "taught to learn" which is a technique they are likely to apply to civilian affairs as well. It is just possible that the newcomers will succeed and the oldsters find the going tough. Personnel executives meantime are gathering all the facts they can on where former employees will fit in.

In the same field

"RETURNING SERVICEMEN" is the title which officials of the New Departure Division of General Motors Corporation have given their *conference leader's manual for foreman training*.

To any employer or veteran counselor or to any group interested in a carefully planned and scientific procedure for the employment of veterans—and the handling of foremen and supervisors—with a minimum of difficulty and misunderstanding, a study of this 150-page manual will prove helpful.

Not only was it written as a guide to aid in employing returning servicemen, and in helping the fighting men adjust themselves to peace-time living and work, but its use has been successful in anticipating and preventing a great many problems which may have otherwise appeared. Already, the operation of the plan has produced tangible, satis-

EXAMPLE OF *Service*:

Yours—with our compliments . . .

This NEW, compact reference book contains 54 pages of vital lubrication information about Earth Moving and Construction Machinery . . . Generously illustrated with pictures, diagrams, charts . . .

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Q Stealing of freight cars by other railroads makes heavy work for Northern Pacific's car tracers. Fact or fiction?

A. Fiction. All U. S. railroads freely exchange freight cars . . . thus, other lines make extensive use of N. P. equipment. However, tracers keep close tab on all 39,000 N. P. cars.



Q. Mysterious X sometimes found on N. P. rails is secret sign of well known gang of saboteurs. Fact or fiction?

A. Fiction. Patrol car with electronic detector instantly puts the finger on any hidden flaw in track, marks the spot with paint to guide repair crew.



Q. "Platform snoopers" frequently seen poking around train trucks is hunting stowaways. Fact or fiction?

A. Fiction. He is checking journal boxes to see whether wheel bearings need oil, packing or new "brasses". All N. P. trains are inspected, to forestall hot-boxes.



Q. A common variety of plant makes smart thieves wary of Northern Pacific freight cars. Fact or fiction?

A. Fact. *Plant*, in crooks' lingo, means an undercover police guard. Scores of railroad policemen protect the millions of dollars worth of goods moved yearly via Northern Pacific.



Q. N. P. "freight detectives" have uncanny ability to predict movement of products of Northwest states. Fact or fiction?

A. Fact. They're the friendly, competent Northern Pacific traffic agents . . . confidants and counselors to a host of shippers along the Main Street of the Northwest.



NORTHERN PACIFIC
Main Street of the Northwest

factory results far beyond its sponsor's greatest expectations.

Some 15 pages of bibliography contain more than 50 annotated items on books concerning the law, counseling and interviewing, the physically handicapped and emotionally unadjusted, job information, community organization and postwar plans, and reemployment procedures.

A limited number of the manuals are available to those interested.

Factory department stores

THE DEPARTMENT STORE idea is creeping into industry as a device for making economical use of big plants. The idea is not altogether new because there were important examples before the war. After the war, however, many big war plants will house the production of several products, each operated as a separate unit. Overhead expense will be reduced in this way. Where the units are parts of one company, there will be still larger savings because joint management, purchasing, accounting and other operations are possible. Incidentally surplus war plant does not appear to be the problem it was earlier judging from the record number of building projects now reported. Plant specialists say that the most modern construction designs are desired to meet postwar competition.

Good news for Junior

AS THE TOY season approaches, there is news that domestic manufacturers intend to push hard for the markets that the Japanese and German products enjoyed. California producers have organized and hope to run their output to as much as \$25,000,000 a year when materials become freely available. American product in the past has tended toward the more expensive items which Pop used to buy for Junior so Senior could enjoy himself. After the war, however, the thorough canvassing of markets for product possibilities probably means that cheaper playthings on the order of previous imports will be made here on a larger scale. By-product production may supply what our enemies sold in years gone by.

Quotable quote

THE recent passing of John A. Brown, who had been president of the Socony-Vacuum Oil Company, brought to mind what he once said when defining the function of management:

"The governments all want us to pay higher taxes and provide more employment; the employees want more wages; those who sell to us want us to pay more; those who buy from us want to pay less; and the stockholders want more dividends. These are normal and natural desires, and we try to meet them."

We wonder if the planners of the brave, new world to come, have taken such normal and natural desires into consideration—or have they plans for changing human nature, also?

GOOD LAMPS ARE THE HEART OF ANY GOOD LIGHTING INSTALLATION

1938 — Factories, stores and offices everywhere begin to use light's latest wonder — Fluorescent lighting — pioneered by General Electric research in 1935.

1939 — Hitler marches into Poland.

1941 — War. President calls for production miracles.

1942 — America rolls up its sleeves. G-E Mazda Fluorescent lamps "roll back the roofs" of plants everywhere for speedy, safe, round-the-clock production.

1943 — War industry takes nearly entire G-E Fluorescent output.

1944 — General Electric Mazda Fluorescent lamps again freely available! All you need for replacements in stores, offices and homes! You get about eight times more lamp value than in 1938 . . . since they cost 60% less, last 2½ times longer and give 35% more light!
Buy all you need and buy G-E!

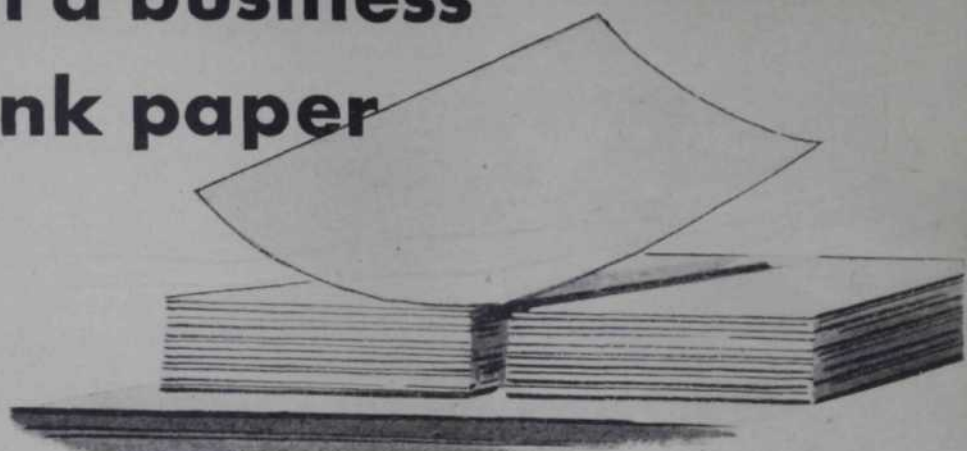


TO MAKE G-E LAMPS STAY BRIGHTER LONGER
. . . the constant aim of G-E lamp research

G-E MAZDA LAMPS

GENERAL  ELECTRIC

How to run a business with blank paper



EVERY person in the United States is affected in one way or another by the paper shortage. Paper must be conserved. Yet, in the face of this emergency, the paper work of business is heavier than ever before. Business requires—and is consuming more paper.

There is a practical way for business to reduce consumption and waste of paper—and at the same time do it profitably by simplifying many office opera-

tions so that time is saved, manpower conserved, labor lightened, errors reduced, and office routines speeded up.

This can be done by the use of Multilith Systemats, a development new to general business, but which is already providing invaluable services to businesses large and small, to Government offices—and the Armed Forces.

A Systemat is an inexpensive paper-like master sheet. It

carries your forms (constant information) for purchase orders, job tickets, shipping documents, etc., etc. in reproducing ink. Variable information is written or typed in on this Systemat. It then becomes the master sheet to go onto a Multilith Duplicator to produce the dozen, score, or hundreds of copies needed—each copy an original, black-on-white, permanent facsimile—all from blank paper.

MULTILITH DUPLICATING SAVES BY:—

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5. Avoiding Wasteful "Over-Runs".
6. Maintaining Legibility.
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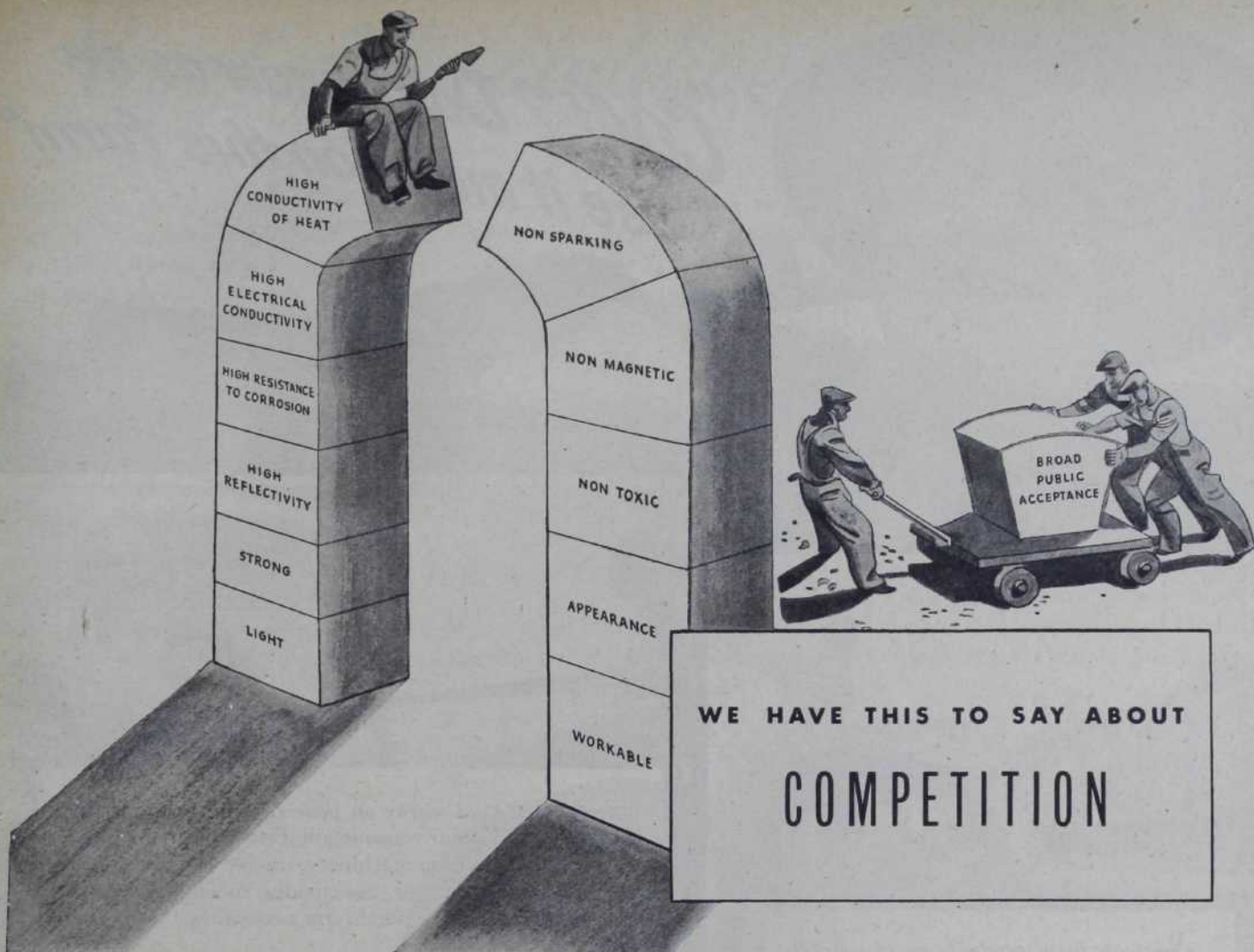
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The vast expansion of aluminum production to win the war has made scores of companies, especially in the field of fabrication, and thousands of workers familiar with the workability and characteristics of aluminum. And now they are helping us set the keystone of broad public acceptance to com-

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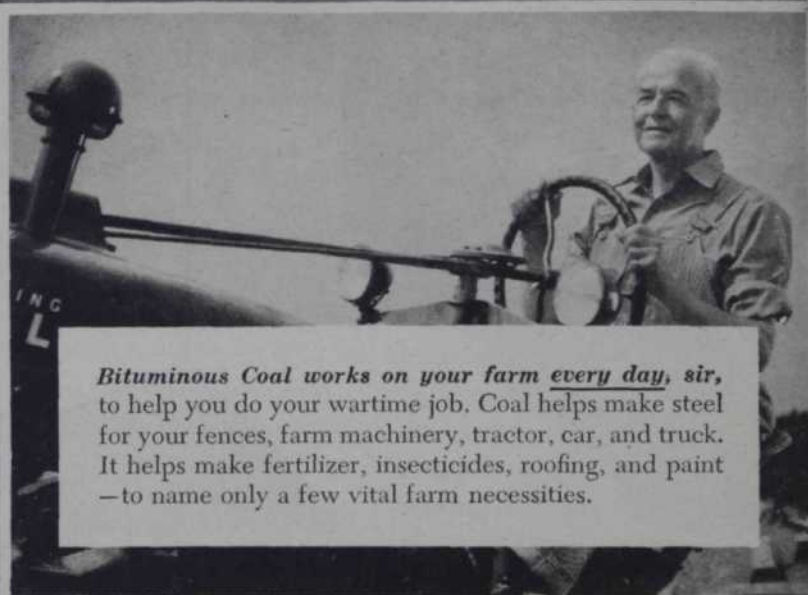




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Plenty of new devices and products look good — on the blueprints.

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That's why, long ago, General Motors built the first automotive Proving Ground as a real aid in making more and better things for more people.

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and crowded with driving hazards. Cobblestones, grades, curves, bumps — everything here to show up a weakness or to prove a strength. Millions of test miles were run every year to improve your car.

Then everything changed — literally with a bang! New war machines appeared, all in need of tests that might mean everything to our fighting men. And the Proving Ground was right there ready to try them out.

If you could visit the General Motors Proving Ground today, you would see tanks standing on their heads, half-tracks slewed around at impossible angles, strange

vehicles of war speeding waist-high through flying water. They are proving their good points, and showing up the bugs that might cause trouble to American fighters.

Here is a pressing wartime need met fully because of peacetime enterprise. It was possible because, in our country, men are justly rewarded for such enterprise.

This idea helped make America great, good to live in, good to bring up a family in. It proved its worth in war. And it will produce more and better things for more people as time goes on.

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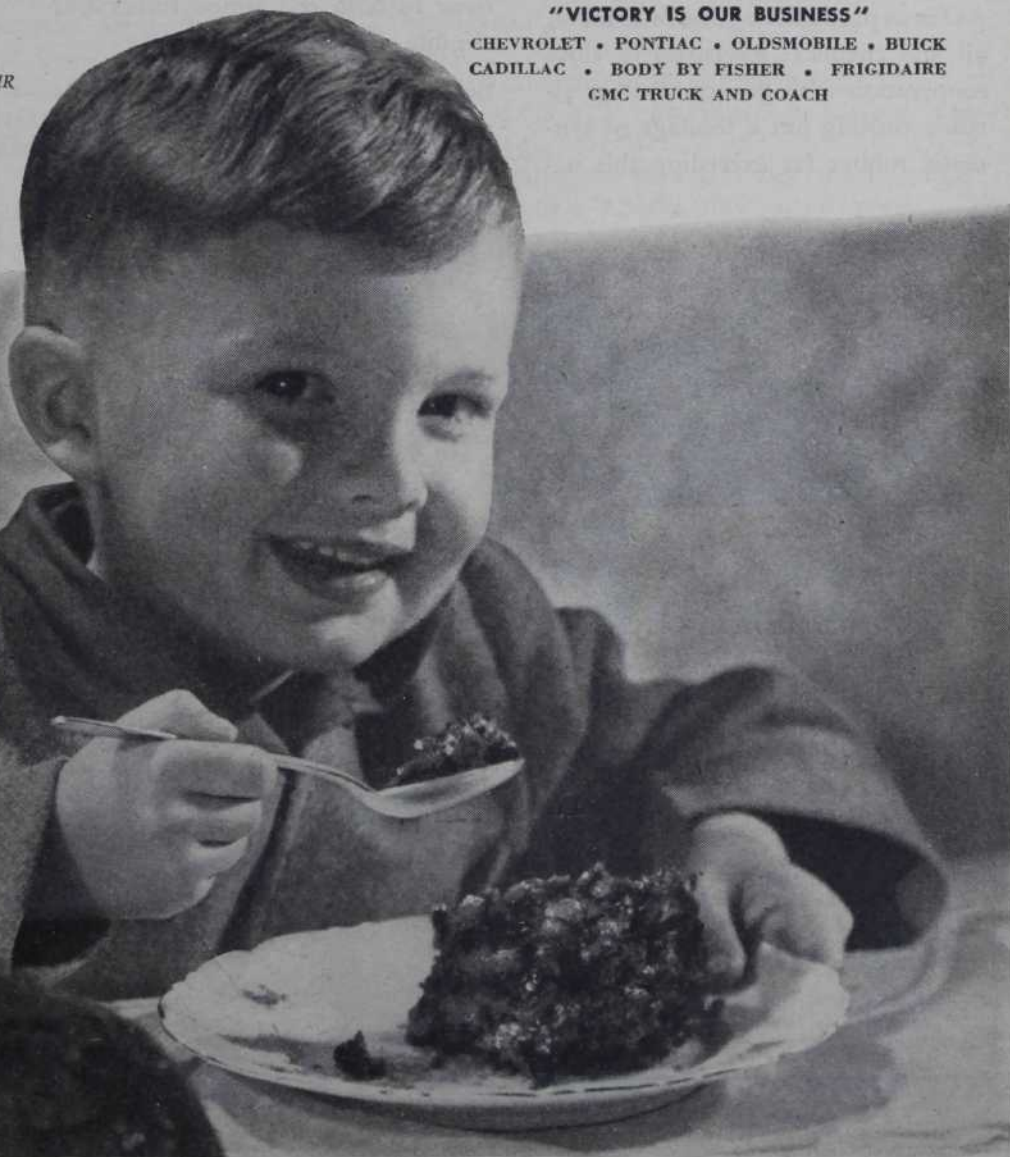
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They're better than you dreamed!

THOSE folks who saw America condemned for the duration to make-shift tires, and few of them, have a pleasant surprise in store.

As far as production goes, the rubber, oil and chemical industries in close cooperation with government are already turning out a tonnage of synthetic rubber far exceeding this na-

tion's largest peacetime rubber needs.

And so today these stalwart new Goodyear all-synthetic rubber tires are being delivered in increasing *millions* to both the armed forces and eligible civilians.

But even more important to a nation whose lifeblood is transportation, they are far, far better tires than

anybody dared hope. In months of use all over America they have proved standout in performance, giving many drivers mileage as good as or better than average prewar standards!

To develop such truly excellent tires from new materials in so short a time would have been impossible without Goodyear's 20 years' research in improving synthetic rubber. That experience, combined with Goodyear's greater tire-building skill, makes them today's best mileage buy.

You can take the word of countless essential drivers for that — and when your turn comes to experience the full merit of these big, tough, springy new Goodyears, we feel sure that you too will find them better than you dreamed.

BUY WAR BONDS — BUY FOR KEEPS

Another Reason for Choosing Goodyears

Next to quality, competent service counts most in getting full performance from tires. Goodyear dealers comprise the largest, most efficient, veteran tire service group in the world.



FEATURES THAT MAKE GOODYEARS WEAR LONGER

1. **PREWAR QUALITY LOW STRETCH SUPERTWIST CORD CARCASS**—greater protection against bruising and cracking.
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6. **HIGHEST QUALITY COMPOUNDS**, products of Goodyear's 44 years' research and experience.



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THE GREATEST NAME IN RUBBER

MANAGEMENT'S

Washington LETTER

A last minute roundup by a staff of Washington observers of government and business

▶ WPB'S RECONVERSION SCHEDULES anticipate a drop of only 6% in total national production during 6 months following V-E Day.

Krug's hope: balance war cut-backs with civilian goods pick-ups. Thus some sharp cuts, but no crash in total employment.

▶ RECONVERSION PRICING policies are OPA's major interest nowadays, with whole postwar control program in the making.

Bowles' memo to 8,000 Advisory Committee members urges purchasing-power pricing theory, pegged generally on 1942 retail levels.

Business says: new prices should reflect increased costs now. OPA theory says: "No, get up to full production first—then you'll find operation profitable even with your higher costs."

For products which have been off the market, postwar ceilings, in general, "will be the manufacturer's own 1942 prices."

Industry-wide price conferences now being arranged in this order—autos, electric refrigerators, washing machines, radios, furniture, with others to follow. (These groups represent about 80% of consumer durable goods dollar volume).

Food pricing will be handled as a separate problem, geared to farm-price programs.

OPA's 93 district offices have been authorized to establish reconversion prices in all specialty items not within major industries. But standards and formulas for these prices have not yet been set.

▶ NEW WAGE POLICY now shaping in WPB is geared to this managed economy price theory—government-pegged retail level

sustained by basic hourly wage rates somewhat higher than present average. ... Census Bureau is making a special test census of 1944 family incomes: to prepare way for a new wage formula based on American Standard of Living.

▶ EXPORTERS seek amendment of Webb Pomerene Act, to protect overseas trade agreements against antitrust prosecution.

The Act (1925) was intended to let American exporters combine for trade purposes to meet foreign competition. But flaw in Act leaves exporters vulnerable at home to antitrust suits even when complying with W-P law.

Both Congress and Foreign Economics Administration want to encourage export trade pools. New legislation is promised early next year to make antitrust immunity air tight.

▶ WHILE BRETTON WOODS proposals for universal banking arrangements still are being passed around the Foreign Offices for reading and initialing, Bank of England has concluded exchange and banking agreements with both Belgium and Holland.

Pound-franc rate maintained at 176.625, with all residual balances payable in gold.

France, Denmark and Norway soon will be brought into these new agreements, to restore pre-war Sterling area in Western Europe.

▶ GOVERNMENT SURVEY indicates that 50% of Europe's petroleum refining capacity is totally destroyed, and most of remaining half substantially damaged. Must be replaced quickly after German collapse to avert intolerable drain on U.S.

Russia and Turkey are only nations in Europe which still have sufficient refinery capacity to supply their own peace-time needs.

▶ RAILROAD NET INCOME, already in declining phase, will be hit hard by diminishing traffic volume after V-E day.

Rate experts calculate that a decline of 30% in freight volume under 1944 would push total railway net back to the break-even point, with many lines in red.

As compared with 1940, labor unit costs on rails are up 27% and operating material costs, up 29%.

Carriers ask restoration of war-time freight increases approved by ICC

in March, '42, but suspended in May, '43.

Without some rate assistance, reserves for postwar replacement of plant and equipment will be inadequate.

► U. S. MERCHANT SHIPS after war will total 50,000,000 tons, according to War Shipping Administration. (Our yards still are launching more than 1,000,000 tons per month.)

U.S. overseas trade routes will use 7,500,000 tons; intercoastal carriers, 2,500,000 tons; inland waterways about 1,300,000 tons and Great Lakes another 1,000,000. (Total U.S. Merchant fleet before war was 3,000,000 tons.)

These estimates leave about 38,000,000 tons of surplus ship bottoms in sight after Pacific settlements.

WSA will ask Congress to freeze 20,000,000 tons in stockpile to avoid disorganized world shipping conditions.

Surplus disposal policy on ships has not yet been framed.

► CONTRACT TERMINATION law permits contractor, after reporting inventories to War Department, to sell or turn back materials. Sales are running at rate of \$2.32 for every \$1 turned back.

Direct sales past three months were \$71,606,000, and turn-backs, only \$31,000,159.

Maximum 60-day clearance period does not begin until contractor submits formal inventory to Department.

Many contractors are putting their sales departments to work on disposal of termination inventories.

Army Readjustment Division urges direct sales wherever possible.

► SURPLUS HOUSES are being offered by National Housing Agency. About 6,000 temporary war houses already have been declared surplus; NHA expects to have 400,000 after war; is experimenting with knock-down and shipping costs, to create national pool of demountables for postwar sale in shortage areas.

Roughly, a \$2,500 unit can be shipped and re-set for \$1,000.

► LUMBER SHORTAGE after war need not extend beyond one year, says National Lumber Manufacturers Association.

Prediction by Wilson Compton, NLMA Secretary: "There is no reason that a normal supply of lumber properly manufactured, seasoned, refined and graded, should not be generally available within a year from the war's end."

Postwar average U.S. consumption is placed at about the 1940 level of 30

billion feet a year—about 10% under present consumption with wartime restrictions.

► STAINLESS STEEL production for civilian uses is held up by continuing shortage in copper, chrome and nickel; and end of war in Europe will not ease these situations at once, although plenty of steel will be available.

Best outlook is that stainless steel will be at least 90 days behind general steel reconversion.

► PAPER SUPPLY continues critical in final quarter, with an increase of 5,000 tons allocated for all types combined, plus 12,000 tons more paperboard. (Increases are over previous quarter.)

Export allocation has been cut by 7,000 tons.

Total woodpulp allocation is same as third quarter; Canadian shipments of newsprint will continue at 200,000 tons monthly; and pulp at rate of 1,100,000 tons a year.

Maximum permitted weights for paper specialty items again have been reduced; to 50 pounds for offset, and 20 pounds for boxed stationery and greeting cards.

Paper and fiberboard salvage campaign must be intensified if fourth-quarter production quotas are to be met.

► BROOM SHORTAGE will continue until 1945 crop of broom-corn is harvested.

WPB estimates U.S. will need 59-million new brooms next year; 40-million for civilians; 11-million for military; 8-million, industrial.

Wage stabilization policy has drained industry of thousands of skilled workers. Adequate manpower next year could give us a broom boom.

► GLASS CONTAINERS are available to practically all industries under amended WPB Order L-103-b.

Unlimited containers authorized for foods, drugs & biologicals, chemicals.

Soaps, creams, cosmetics, lubricants and tobacco, all allowed 130% of 1943.

Beer, wines and distilled spirits, 130% of 1943; soft drinks 110% of 1941.

Caps, closures and seals, when made of reject metal scraps, are no longer under quota.

► APPRENTICE TRAINING within industry is planned as a major postwar project of WMC; has a list of 120 apprenticeable occupations; will seek to classify various war disabilities according to specific industries in which vets may be

trained. Labor is cooperating in the program.

First warning of recent apprenticeship conference: "Don't oversell the veteran on your business. Pick men more for aptitude and natural inclinations."

William F. Patterson is Director of Apprentice Training Service, WMC, Washington.

► ARMY DEMOBILIZATION program is under way at five famous resort hotels (Redistribution Centers), where vets relax and unwind from overseas duty before resuming civilian jobs.

Service wives also may enjoy these facilities with husbands at their own expense—modest government per-diem costs.

Principal task of centers is to provide vocational guidance for men seeking new careers to employ war-acquired trades and skills.

Employers seeking these men may submit personnel requirements to their regional Redistribution Center, U.S. Army Service Forces.

► STANDARD PACKAGING specifications for export shipments are urged by WSA to stimulate postwar foreign trade, reduce costs, eliminate pilferage.

National Foreign Trade Council will bring together industry-wide committee including carriers, exporters, underwriters and packaging experts to submit minimum specifications.

War experience has opened many new frontiers in overseas packaging. For details communicate with F. M. Darr, Director of Traffic, War Shipping Administration, Washington, D.C.

► AIR FREIGHT service of U.S. Air Transport Command recently hung up a new world's record by delivering 23,000 tons of freight from India to China in 1 month—equal to 20 average freight cars daily; twice as much as ever moved by truck over old Burma Road.

Part of this month's total was 300 army trucks.

On one day, with 569 flights, ATC delivered 35 carloads (2.5-million pounds) over the Himalayan Hump.

With new daily service both ways between New York and Paris, ATC now operates 170,000 miles of scheduled air routes around the world (greater than prewar air mileage of all nations combined).

► VITAMIN ADVERTISING is under close scrutiny by Federal Trade Commission.

A series of recent complaints against excessive health-building claims practically sets down a new code governing such copy.

Claims must be limited to specific benefits of a given product—not general statements on nutritional function of vitamin compounds.

FTC policing covers radio, pamphlets, professional literature, and consumer copy.

► LABOR DEPARTMENT reports an average of 261 strikes per month in 36 months before Pearl Harbor; average boosted to 316 strikes per month in 32 months after war's outbreak.

► WASHINGTON BUSINESS BRIEFS: Ranking military strategists still anticipate collapse of Germany before December....Precision industries have been tipped to prepare for a new and vast production program on explosive rockets; they'll get a real workout in Pacific. ...Uncle Sam's civilian pay roll now carries 3,628,063 persons (exclusive of all military personnel); 1933 total was 570,000....WFA anticipates a further cut in civilian butter allocations in November; supply upturn not due until February....First \$85-million in sales of surplus war property brought government 82.7% of actual cost; surplus declarations to date aggregate \$400-million, half of it in aircraft....Dewey managers claim 25 States with 304 electoral votes, on basis of their final telephone poll. (266 needed to elect.) Last soldier votes will not be counted and reported until mid-December....FCC is advising advertisers and station managers that every radio program must "serve a useful war purpose"....WPB is working on a program to allow accumulation of peace-time material inventories, pending manpower availability....U.S. stockpile of new passenger cars has been whittled down to 17,000 units; going at rate of 3,000 per month; normal peace-time demand was 10,000 cars daily....A T & T is planning ship-to-shore telephone service by short wave radio on postwar overseas air lines....WPB survey estimates that 25 to 40% of U.S. industrial workers suffer subnormal eyesight to a degree which curtails their maximum production....Under speed-up loading techniques, ship sailings from all U.S. ports have averaged 1 every 30 minutes in recent months—about 500,000 tons of cargo daily....Army Dental Corps has issued more than a million new dentures since Pearl Harbor.



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Need We Repeat 1920's Spree?

By HERBERT BRATTER



National income has risen farther in this war than in the last. After the 1918 Armistice, it continued upward. How will it go this time?

WHILE the frenzy of Armistice Day, 1918, was at its wildest, a Dollar-a-Year Man sat in his temporary government office pushing a few private papers into a brief case. "This is goodbye," he told his secretary as he reached for his hat. "I'm all through here. Now I go back to my regular job."

In other offices, other Dollar-a-Year Men were doing the same thing, or would do it in a day or so. The war was won. The "good old days" would soon be back and business would be occupied for years in making the things that civilians were itching to buy.

Or so it seemed at the time.

In October, 1918, the National City Bank of New York had offered a glimpse of the postwar world as it promised to appear:

We may expect that, after the war, there will be a waiting demand for many kinds of goods and equipment so urgent that for a time prices will be a secondary consideration. The whole world is doing without things that it would gladly buy, wearing out equipment and falling be-

BUSINESS suffered in 1920 from its early postwar mistakes. Conditions now differ so that we need not go through the same price wringer again

hind its wants. It is falling behind in housebuilding, for example, in road making, in railway extension and in the development and improvement of public utilities. . . . The cars in use will be nearly worn out. Clothing will be worn out the world over, and stocks of cotton will be low. . . . The world is not going to seem so large, or its divisions so separate and distinct from each other as in the past. Foreign countries will not appear so remote or difficult of access to Americans. Undeveloped resources . . . will not be neglected anywhere if stable government and protection to investment can be had.

By November 16, 1918, headlines in the *Commercial and Financial Chronicle* revealed that the last vestiges of wartime restrictions were rapidly being removed:

WHEAT RESTRICTIONS REMOVED BY U. S.

FOOD ADMINISTRATION.

LIGHTLESS NIGHT RESTRICTIONS PARTIALLY REMOVED.

MODIFICATION OF RESTRICTION ON NON-WAR PRODUCTS AND BUILDING.

REMOVAL OF RESTRICTIONS UPON HIGHWAY IMPROVEMENT.

MODIFICATION OF RESTRICTIONS IN USE OF COAL.

In that jubilant month no one, apparently, had a premonition that American business was rushing toward one of its wildest sprees—and one of the shortest booms on record.

There was, in early 1919, a temporary period of uncertainty. Then everything went through the roof. Writing in *NATION'S BUSINESS* for May, 1920, Fred C. Kelly reported "stockings at \$250 a pair; fur coats at \$30,000; cotton dress in one store \$90 (cost \$10 to make); handkerchiefs at \$85 a dozen."

By July it was all over and *NATION'S BUSINESS* was again reporting:

"A wave of price cutting swept the country in late May and early June. Prices are going down, people haven't

been buying and retailers have large stocks on hand. Window shopping replaced interior shopping and the merchant knew from his sales record that previous liberal purchasers were gradually cutting down on their buying. With big stocks on hand and the market gradually lessening, there was but one course to pursue: make the prices attractive enough to loosen up the purses of the people."

Before those purses loosened up cotton prices dropped 73 per cent; beef steers 56 per cent; wheat, 65 per cent; petroleum products 60 per cent. Factory pay rolls shrank by 44 per cent.

Soon business was in a state of collapse, with an epidemic of bankruptcies and unemployment. Here is the story, as recently recounted by OPA's Chester Bowles:

Almost half of the total inflation of the last war occurred after the Armistice. For a year and a half we had a mad speculative spree. In the middle of 1920 we began to pay the piper. The bubble burst and a savage deflation set in which

its. Business failures in the next five years totalled 106,000, 40 per cent more than in the five years, 1910-14.

The farmers, too, took a beating. Farm prices fell 61 per cent and taking into account inventory losses, net farm income tumbled from nearly \$9,000,000,000 to less than \$3,000,000,000. In the next five years 453,000 farms were lost through foreclosures.

That's the story of reconversion after the last war. Everybody had moved up together and everybody came down together. We went up fast; we came down hard. . . .

Business needs good guesses

WHETHER we are to repeat that experience depends primarily on how fast we reconvert. It also depends, to a large extent, on the decisions that thousands of business men and millions of individual workers must make. Unfortunately, predictions cannot be left to the economists. Every business man has to guess the actions of his market and outguess, if possible, his competitors. In 1920-21 a lot of people guessed wrong.

come, wholesale prices, corporation profits after taxes, and business failures. One set of curves starts in 1914, the other in 1939.

National Income: The chart shows that during this year to date, the expansion has been much greater percentage-wise than it was after 1914. Keeping in mind that this war has already lasted longer than World War I, as well as the fact that the end this time is coming in two major stages, it is of interest to note how the national income continued to mount after the 1918 Armistice, only to crash in the 1920-21 depression. In attempting to guess what may happen after the present war, we need to keep in mind such differences as the experience with price control, public spending, and the like.

Wholesale Prices: The chart is striking because of the differences between the two war periods. From these differences to date it seems safe to infer that there will be differences in the two postwar periods. If "what goes up must come down," what does not go up so far does not have so far to come down. Note in the curve for World War I prices how much of the rise occurred after the war had ended, when inventories were being piled up, and how sharply prices tobogganed after the buyers' strike began in 1920.

Corporate Profits After Taxes: Thus far in the present war profits have pursued a less erratic course than during the last war. Also, the percentage of increase is not so great. The sharp drop from 1919 and the painful experience of 1921 are reflected in the chart—the period when businesses were paying the piper for the inventory-hoarding spree that began not long after the Armistice.

Commercial Failures: This time, as last, liabilities have declined rather steadily. After the last war the decline was rudely reversed, beginning in 1920. Since the present war won't be over when Germany surrenders, economic activity dependent on production for the Japanese war will tend to be sustained at a time when producers whose contracts have been terminated will be reconverting. Note again that the increase in commercial failures last time started only in 1920, more than a year after the Armistice and that it was, in part, a result of the boom of 1919.

The first reflection on looking at these charts is that many important circumstances today are different than in 1918. During this war we have in force numerous government controls of production, prices and distribution which last time either did not exist, or existed on only a moderate scale. Some automobiles for civilians were produced throughout the last war, for example. Last time, prices of steel plates rose to seven times their prewar level. This time they have been held to their 1941 level. Even allowing for evasion of ex-

(Continued on page 84)



During this war prices have been more effectively controlled. But after World War I much of the price rise occurred after hostilities ended

carried prices and wages downward even more rapidly than they had risen. Wholesale prices fell 40 per cent. Unemployment shot up by nearly 6,000,000, pay rolls shrank 44 per cent and the average weekly earnings of workers who kept their jobs were cut by one quarter.

Corporate profits tumbled from \$6,500,000,000 in 1919 to a loss of \$55,000,000 in 1921. Inventory losses totalled \$11,000,000,000 and wiped out practically all the reserves accumulated out of wartime prof-

A pertinent question now is whether those wrong guesses of 1920-21 would still be wrong guesses if made after the end of the present war. As a partial guide in answering that question, four charts accompany this article, comparing for the last war and for the present war to date four different indexes of the nation's business. The charts indicate changes which followed the outbreak of war in respect to national in-

Secure Old Age, Industry Style

By RALPH WALLACE

JOHN L. SHIELDS, plump, peppery and 81, never made more than \$32.50 a week in his life. He worked as a watchman in Frankfort, Ky. Then he got old and had to retire. He had a rented house for himself and his wife, a small savings account, and little more.

A few years ago Johnny would probably have ended up on that bonepile of human hope, the poor farm. Yet right now Johnny's doing about as well as in the palmiest days of his life. He doesn't work a lick. Yet every month he cashes checks totaling \$130, or almost precisely what he once drew in salary. The answer?

Johnny's on pension from his old employers—Schenley Distillers.

The ghost of a needy old age has been laid for 2,000,000 American workers by the greatest corporate pension rush in history. Before the war only about 1,000 corporate pension plans existed. Now 6,000 such plans have been filed for Treasury approval—a necessary step before a plan can begin to operate. More snow down on Treasury desks every day. How much private industry will pay aged workers each year no one knows; the total may ultimately reach \$1,000,000,000. Best of all, these annual payments are not speculative. The companies cannot change their minds and decide to use the money for something else. Payments are guaranteed, either by insurance company funds or irrevocable trusts.

Labor, once opposed to pensions as a scheme to hold down wages, in most cases now stands wholeheartedly behind present corporate programs to supplement Social Security benefits. The average government payment to most old couples ranges between \$50 and \$60 a month—admittedly inadequate to provide more than bedrock essentials. Additional contributions by employers spell the difference between comfort and misery. In the more generous plans, a retired worker in the \$2,400 a year salary bracket may draw \$100 a month or more, counting Social Security benefits.

For many present-day workers a pension gives a new lease on life

Such enlightened social thinking has already drawn employer and employee closer together. I made an intensive survey of more than 100 representative American corporations which have established pension plans. Company after company reported increased production, less labor trouble, better worker morale. More than 80 companies reported lower labor turnover. One prominent executive informed me his labor turnover had been only half as much as anticipated, simply because workers knew they would be taken care of in old age if they stuck with their jobs.

Almost equally significant, the landslide of new pension plans has helped stimulate an even more impressive boom in company-sponsored life insurance and health insurance programs—

AMERICAN corporations were building social plans a generation ago. Now millions of workers are protected in retirement



Walton

EDWARD F. WALTON

the other two keystones of workers' social security. Group health and accident plans, tripling and quadrupling in number in the past decade, now protect about 7,000,000 workers; 15,000,000 are covered by group life. In such representative concerns as Armstrong Cork, Monsanto Chemical, Glenn L. Martin and Freeport Sulphur, the company bears a third or more of the costs.

"The days of regarding the worker as an automaton are gone forever," Langbourne Williams, president of Freeport Sulphur, told me. "The worker makes American business click—why shouldn't he have the advantage of business-sponsored safeguards for his life, his health, and his financial security in old age?"

Tax laws encourage this point of view. Employers have always been able to

deduct employee benefits from taxable profits—and with many companies making considerable excess profits taxed at stiff rates, the cost of pension plans has now tumbled to an all-time low. One Middlewestern company is putting aside \$2,000,000 annually for its aged workers, yet high earnings made the actual net cost to the company only \$370,000 last year.

Company pays for pension

SOME company plans are models of liberalism. One of the best was established several years ago by Shell Oil. Employees after only 20 years of service receive as a pension 40 per cent of their last five years' average pay. This means a \$3,000 a year worker would retire at \$1,200 a year. They retire at 60. Employees do not contribute a cent to this pension program. Even more impressive, Shell has what is called a "Provident Fund"—a voluntary plan by which up to ten per cent of an employee's salary can be deducted and saved until he quits or retires, with the company matching the worker's contribution dollar for dollar.

This program means far more than a comfortable retirement income. A \$3,000 employee, working 30 years, may receive more than \$22,000 from the Provident Fund in addition to his pension—which means cash to take longed-for trips, buy a house, a boat, a fishing lodge. Shell workers are thoroughly protected in sickness. Group health insurance, with costs borne by employees, provides two-thirds of pay during absences from work; in addition, the company pays a substantial portion of employees' normal earnings under a sick leave program based on years of service. Altogether, Shell's benefit plans cost close to \$10,000,000 annually—and company executives say emphatically they're worth every penny of expense.

Similarly, the Bell System telephone companies, including Western Electric and Bell Telephone Laboratories, provide unusually liberal and comprehensive benefits—all without cost to the worker. In cases of illness, for instance, the Bell companies grant one month's full pay and nine weeks' half pay to employees having two years' service, with the scheduled payments stepped up to a full year's salary after 25 years of service.

The companies' plan also provides pensions of one per cent for each year of service times the employee's pay average for the last ten years, and maximum death benefits ranging from four months' pay after two years' service to a full year's salary after ten years of service. Du Pont has the same general pension plan as the Bell companies, as well as free health insurance.

In recent years a few companies—arguing that government Social Security payments are sufficient to take care of the low-salaried worker in old age—have established pension programs which affect only employees earning \$3,000 or upwards. More than 80 per cent of present programs, however, take in all workers, low- and high-salaried alike.

Numerous company plans boast long-range, carefully worked out actuarial features which make them unique. One of the most unusual social security programs in America both in scope and liberality was instituted not long ago by Schenley Distillers. Its non-contributory trustee pension plan provided without cost to the employee aims at assuring even \$1,500 a year workers a minimum retirement income of \$1,200 after 30 years, with proportionate payments to workers with shorter periods of service. This result is achieved by giving a flat pension of \$20 a month on the first \$600 of earnings. On the remainder of the salary, pensions are figured on an aver-

age of 1.2 per cent of the wage multiplied by years of service.

How does this work out? A 65 year old married employee averaging \$1,500 a year for 30 years gets \$56.50 monthly from Social Security and \$47.00 from the company—a total of \$103.50, or nearly \$1,250 annually.

With the same years of service an \$1,800 a year worker will get about \$1,400; a \$2,200 worker roughly \$1,600.

Because of its concentration on benefiting the low-salaried group—the reverse of many pension plans—the poorest-paid Schenley employee can count on nearly 100 per cent of his final salary after 30 years of service; the highest paid, only about 30 per cent.

Insured for health

THE company also provided health and hospitalization insurance for the employee and his dependents. Hourly workers—usually dropped from industrial pay rolls during accident or illness—receive a set income from Schenley while ill from any cause.

Schenley's life insurance program—with the company contributing the bulk of each premium—provides more insurance for younger employees, where family needs are greatest, and less for older workers. A \$2,000 a year worker entering the plan at 35 with estimated potential earnings of \$60,000 over a 30 year period would have a death benefit of \$5,000, while a new 50 year old worker, also averaging \$2,000 a year, would get only a \$2,500 policy.

Equally important—and contrary to most group insurance plans—the employee who leaves the company can exchange his insurance certificate for any cash which has been accumulated, obtain paid-up insurance, an ordinary life policy, or convert his policy into an annuity.

"What we've done is to concentrate on the actual needs of the low-salaried worker," Lewis S. Rosenstiel, board chairman of Schenley, says. "To me it seems inhuman that a faithful employee should be tossed on the scrap heap. We set aside funds for the depreciation of machinery—why shouldn't we take care of the depreciation of men?"

Can American companies in general afford such comprehensive pension and insurance plans? The answer is that scores of American corporations, from American Express to Standard Oil, managed to afford them a generation before Social Security old age benefits and high taxes combined to slash costs to the rock-bottom low of today. Most authorities believe plans of this type actually yield a profit in bettered worker

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Former workers, now retired on comfortable pensions, are free to enjoy themselves, give their time to public service, or ride their favorite hobby

Builders Report for Duty

By RICHARD E. SAUNDERS

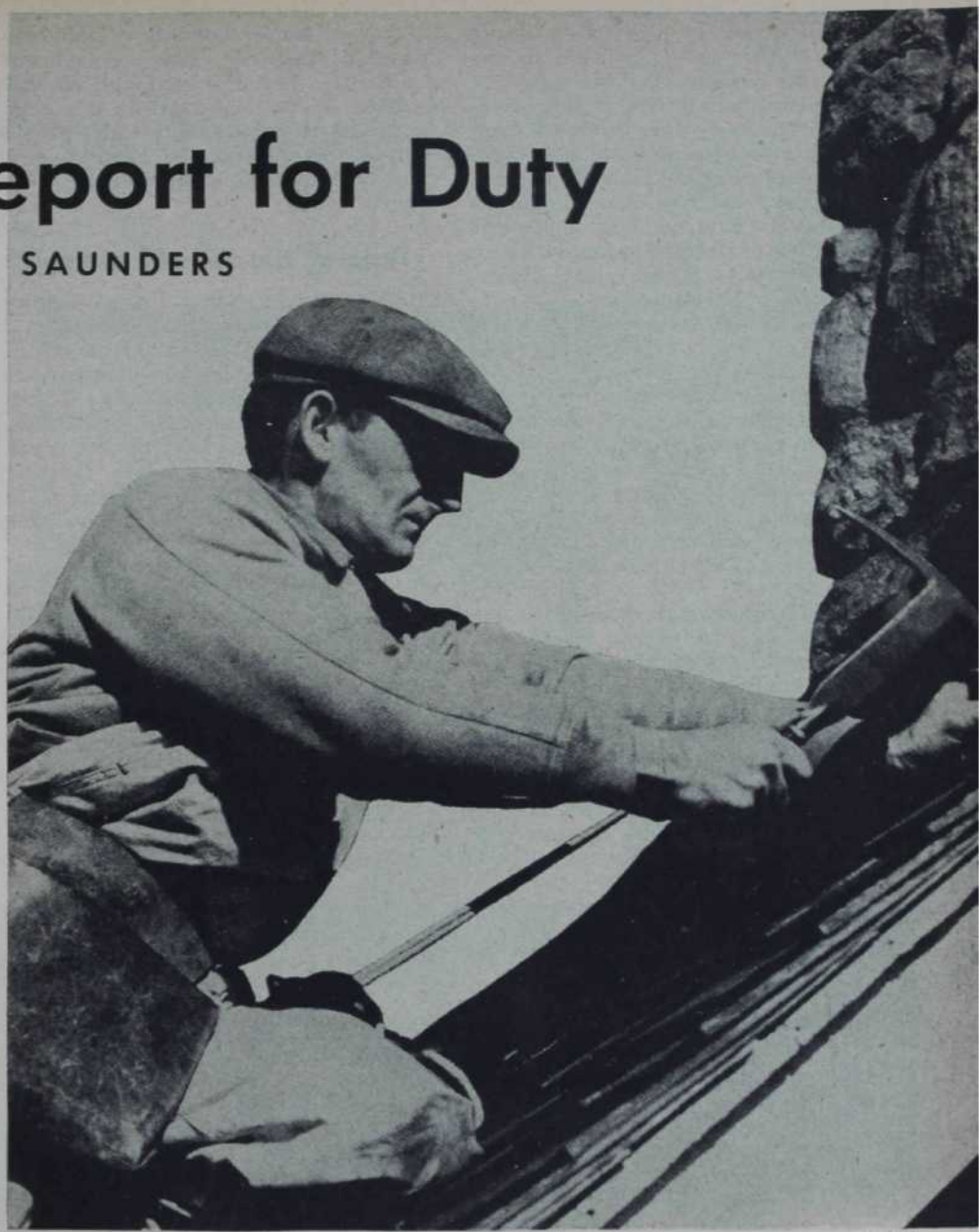
CONSTRUCTION in normal times gave 6,000,000 jobs. Now it waits the dropping of controls so it can fill the backlog of civilian building

THE TAP of the hammer is the sound of prosperity. In every peace-time period when America has been busy, with jobs plentiful and living standards rising, the tap of the hammer and the rasp of the saw have helped carry the melody in the national business symphony.

Back of the hammer is the construction industry. Construction is a new home, office building, store, road, airport, post office or remodelled dwelling. Measured by any terms, postwar construction will be universally needed. The city family wants a new home in the suburbs. The farmer wants a new barn. The returning veteran may be looking either for a farm or a city home. Down in the older part of town are enterprising merchants, eager to set up new park and shop developments closer to where people live.

Because these millions of customers are waiting to do business at its counter, the future of the construction industry today is everybody's vital concern. In normal times the industry provides as much as 15 per cent of the national income and some 6,000,000 jobs. Because of its ramifications, construction spreads its prosperity widely across the country. Since it is quickly convertible, many people are looking to it to take up much of the slack that must necessarily develop during the reconversion period. Whether or not the industry can meet that challenge will depend largely on the conditions under which it is permitted to work.

Happily enough, it now looks as though construction is to be allowed to meet the postwar demand with a minimum of interference in the form of government restrictions or regulations. For a time it had seemed that, in the process of unwinding war controls, WPB would try to impose a preference pattern for peace-time construction. Many in the



When the country's economy is healthy, there is a steady sound of hammer and saw making plentiful jobs and better living standards

agency—and on the outside, too—contended that, in the beginning, at least, the Government should see that the most necessary projects got started first, a federal board or agency would decide whether a new school in, say, Peoria, is more important than a shopping center in Dallas or a highway extension elsewhere.

Civilians to share alike

WPB has made it clear that there will be no such preference rating, even temporarily. Thus, once the construction ban is lifted—and it is due to come off when the war in Europe is ended—it will be removed entirely. While the Pacific war is still in progress, construction of military importance such as plants, docks or housing will, of course, have first call in obtaining critical ma-

terials and workers. But, as far as civilian construction is concerned, there will be no programming.

Still disturbing the industry, however, is the idea that it should function as a kind of economic balance wheel. Many usually well posted people subscribe to the theory that, if enough construction of the public works type can be held in readiness and started at just the right time, it may check a decline of the business cycle.

This theory is plausible enough in the abstract. In application, however, it is bound to bring about disturbing and upsetting trends that won't be good for either construction or the country.

If the federal Government wants to plan its construction in such a way as to hold back work that has no time element to it, applause will be quite general. This work, involving such things

as reclamation projects and an intensified construction of post offices, could then be thrown on the market in dull periods. As a matter of fact, governmental policy has tended in this direction since the early days of the century. It would also help if state and local governments would follow the same pattern as much as they can—and many are doing it. This not only helps the construction industry eliminate its own peaks and valleys, it also results in lower prices for public projects.

But the trouble is that advocates of stabilized public construction inevitably reach the point where it appears desirable to hold forth the tempting bait of federal assistance to states and localities. When the states and cities are encouraged to believe that a program of federal loans and grants will be available to help with the financing, they are likely to hold back normal public works undertakings that should not be retarded.

Moreover, it is bad practice to get the states and cities to lean on the federal Government. In his testimony before the House Committee on Public Buildings and Grounds last year, Eric Johnston, President of the U. S. Chamber of Commerce, pretty well reflected business sentiment on the subject. He told the Committee that Congress should make it clear that the federal Government expects the cities, counties and states

to finance their own ordinary local public works. Many elements of the construction industry have come out against the idea. For example, the Associated General Contractors has gone on record as opposing the idea. Even spokesmen for groups of local government officials have expressed the same view.

Federal aid means control

PREVIOUS programs have demonstrated that a long term federal aid program for local public works invariably leads to control. Regulations are soon made imposing wage standards, specifying working conditions, prohibiting the use of certain materials and, in countless other ways, limiting the free choice of the borrowing municipality or state and the construction firms and supply dealers who participate.

As far as the economics of the situation are concerned it remains to be proven that a concerted federal-state-local public works program can make much of a dent in a depression. Incidentally, another pertinent question to be answered is: Can any board or commission have the precise shade of judgment needed to know exactly when to turn on the spigot?

There are encouraging signs that Congress is ready to put its foot down on further proposals for a federal financing

program for local public works. Just recently, in an interim report on various matters relating to postwar planning, the Colmer Postwar Policy Committee of the House pointed out that "state and local governments reveal a stronger financial position than they have enjoyed in any recent year, while the federal Government faces the responsibility of bringing a huge federal debt under control." The Committee has, therefore, recommended against federal aid for local construction. At the same time, the Colmer Committee has endorsed a plan for extending federal assistance to state and local governments so that they may map out their projects and have them ready when the time comes.

Another significant development along this line is the Reconversion Act approved by Congress last month, which calls for federal aid to stimulate local public works programming. This measure provides no appropriation but it is understood that \$150,000,000 will probably be requested by the agency that will be in charge of the administration of the program—the FWA. Assistance in preliminary planning will cover such items as architectural and drafting fees and site surveys. But it will not be available to pay for land procurement.

What overemphasis on planning and programming ignores is that, except during periods of war emergency, con-

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Construction of the public works type can be timed for dull periods. This not only helps level out the business cycle but also results in lower prices for the construction

It's What You Have Left

By DANA M. HUBBARD

NINE YEARS ago two men met on a hot Chicago sidewalk. One was a deaf-mute printer, broke and fresh out of a job. The other, a chemist, had been off the University of Wisconsin campus just long enough to land his first job and lose it. Six months earlier, a street car smashed him up in a traffic accident and the doctors amputated one leg.

There was work for printers in Chicago that summer, but none for printers who couldn't hear the boss giving instructions or even use a phone. As for George Barr, the chemist, four months of persistent job-hunting had produced exactly nothing. Everyone was sorry for him. Everyone wanted to be helpful, but nobody wanted to hire him.

None of this had lessened his determination to make something of himself as an industrial chemist. "A chemist's worth doesn't depend on his legs," he told his printer friend. "It isn't what you've lost; it's what you have left that counts. Don't tell me I haven't plenty."

"When you sell some of it, let me know," wigwagged his pal. "I'm not above diving off your springboard." The reunion was over.

Curiously enough George Barr did build a springboard and both of the men used it. Some optimists believe that thousands of other boys who come home from the war with physical handicaps will be able to use it, too.

After that depressing sidewalk reunion in Chicago, Mr. Barr screwed up



OF G. BARR & Company's employees, 90 per cent are physically handicapped. Their results show a practical business way of rehabilitating veterans who may be partially disabled

Two blind men, attended by seeing-eye dogs, assemble packages at high speed

his courage, took the few dollars he had and launched G. Barr & Company, manufacturing chemists.

Loft space in a decrepit building on one of Chicago's threadbare streets cost him \$15 a month. Materials and ingredients for making a hair dressing and a mouth wash didn't cost much either. Mitchell Echikovitz, the deaf-mute printer, became his first employee.

Today G. Barr & Company, still wearing their Army-Navy "E" award a little self-consciously, are doing rather well. But sales volume, profits or production methods are not the reasons G. Barr & Company is worth talking about. The important detail is that, of this company's 142 employees, 127 are seriously handicapped physically.

Since its start, it has operated under

the policy of hiring no whole man if a handicapped person can do the job.

For a nation that is beginning to think seriously about welcoming home and taking care of wounded soldiers, sailors and marines in the next year or two, George Barr has done some valuable pioneering.

Some of the workers in this remarkable
(Continued on page 80)

China Faces the Challenge of

CHINA STANDS out today as the great question mark at the end of every statement about the future of the Orient.

The end of 1944 finds her at her weakest point in the war with Japan and yet every Allied plan for future peace must necessarily hinge on the development of a friendly Asiatic power. For that role China is the only candidate.

Every hope for an Orient with new boundaries, new occupations and new ambitions depends on China's power to preserve the peace in Asia, its leadership in the Orient and, more than all, its future in finance, industry and commerce. All are vitally important to the American business man, the missionary, the technician and thousands of others whose investments, careers and hopes are associated with that age-old country.

The big space which Japan filled in the affairs of Asia and the world—military, political and commercial—will be a vacuum.

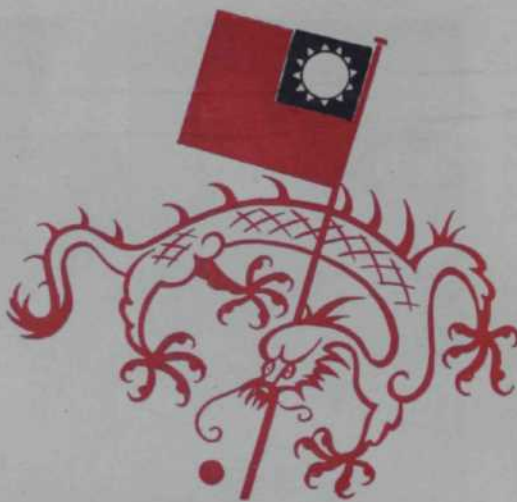
The vacuum of commerce will remain and it is large. Before the war our trade with Japan was exceeded only by that with the United Kingdom and Canada—machinery, cotton and other supplies to produce cheap consumer goods for export. Though Japan disappears from the world of trade, the markets which were Japan's—China, Thailand, Indo-China, India, the Pacific Islands, South America and even the United States and Europe—will remain.

The American business man with his varied interests in the Orient sees all this. His first thought is: Can China take Japan's place as the processing nation and middleman for the United States?

It has the low labor costs which were the greatest incentive to Japan's export trade, but that is far from a complete answer.

China has rich reserves of raw material and abundant, unskilled manpower. It does not have the factories, industry and machines to supply a world demand; or the transportation and distribution organizations which are so essential to trade. The problem becomes one of industrializing China and changing the habits and living conditions of millions. To industrialize, China must start almost from scratch.

It is a stupendous task, hailed as the challenge of the age. It can be met. The



AS THE ONLY nation that can fill the vacuum in Asiatic leadership, China must modernize her industry, her government and her traditions

part which the United States will take in the task, the terms and the opportunities afforded American business and other interests must be decided. Enduring ties of affection and mutual interests link the two countries but the problems of finance and trade are practical, not sentimental. Much depends on China's attitude.

To cooperate, the United States must start with a true picture of the country.

Unexplored field

CHINA always has been a happy hunting ground for foreign observers, civilian and official. Our government has them in this war—military, political, psychological, economic. They see a China within their orbit and get an idea of what is beyond. The longer they stay, the surer they are that it is as vast in possibilities as it is vague in statistics. Even its officials do not agree whether it has 400,000,000 or 500,000,000 inhabitants.

The patient, slow toil of that country's millions produces such an impressive total that few persons realize that the aged country is largely undeveloped and that most of its industry is primitive. Port and river cities with modern fac-

tories and barbarous labor conditions give the impression of an industrial country with unlimited manpower.

In other parts, 70 per cent of the population is tied to primitive agriculture while undeveloped areas average less than a single inhabitant per square mile. Charts show fabulous reserves of coal and iron mostly in Manchuria; oil, manganese, tin, antimony, lead, tungsten, salt and almost every known mineral. The ground over most of them is undisturbed and transportation must come to give them value.

The need for moving factories to free China has introduced machinery to thousands but it is only a scattering of the seeds of industry when the entire country is considered. Chinese reports say 110,000 tons of machinery were moved, the largest unit being 40,000 tons of the Hangyehping Iron Works which had closed down in 1925. The reports add that out of 1,915 privately owned factories which used power, had \$10,000 capital or 30 workers, 639 with 12,164 workers were moved from occupied China and 472 have resumed operation in free China.

To these are added 1,500 to 2,000 "Indusco" factories, the Chinese industrial cooperatives launched by Chungking in 1938. The latest official figures show 1,590 Indusco factories with an average of 14 workers, \$143 capital and \$692 monthly output per factory, in U. S. currency at 20 to one. Indusco may industrialize the country in several hundred years but the rest of the world, even China, cannot wait that long. However, it is a forward step in teaching cooperation among workers and providing medical care, education, social insurance and a living wage, all of which have been sadly lacking in China.

Larger than the United States by close to 1,000,000 square miles and with more than three times as many people, China can produce 50,000 tons of steel annually (U.S., 89,000,000), has 12,000 miles of railroad by including Japanese lines (U.S., 237,000 and Illinois, 12,512), has 68,500 miles of highway of which 15,500 are surfaced (U.S., 3,300,000), has 60,000 tons of ocean shipping, not counting two lend-lease Liberty ships (U.S., 11,000,000), has 76,799,000 head of livestock of which 38,720,000 are pigs (U.S., 78,170,000 cattle and 73,660,000 hogs), and 15,000

PEACE

technicians where at least a million are needed.

The official Chinese figures are a rough estimate for the country. Julian Arnold, for years American Commercial Attaché in China, estimated its iron consumption—barometer of a nation's mechanization—at three pounds *per capita*, compared to 30 in Japan, 285 in England or Germany and 550 in the United States.

China's industrial needs

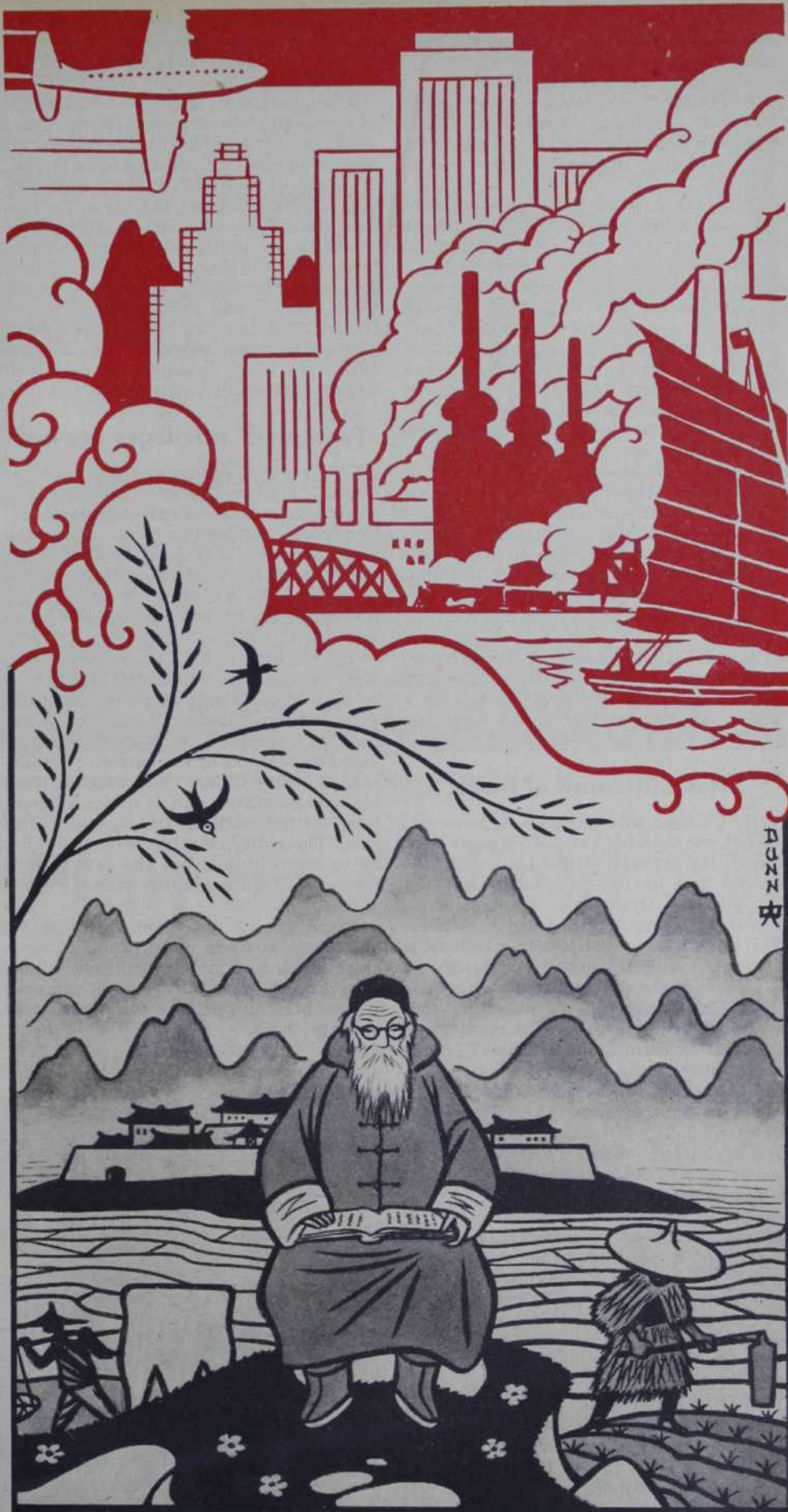
WITH that idea of what China lacks in industry, we turn to plans for the future. China's needs in men and machines for five years after the war were outlined recently by a member of the Chinese Supply Mission to this country. Its reconstruction can absorb \$10,000,000,000 in foreign capital, almost equal to America's total prewar foreign investment. His estimates were: 100,000 civil, 45,000 mechanical and 15,000 electrical engineers; 25,000 locomotives, 300,000 freight cars and 30,000 passenger coaches; 12,000 transport planes; 1,000,000 miles of highways; a power industry to supply the country, and, each year, 500,000 new automobiles, 450,000 looms, 20,000 automatic machines and 5,000,000 tons of steel.

The figures are modest for such a vast country but grandiose against the background of China's past accomplishments. The great Sun Yat-sen made the same estimates, except for the airplanes, a quarter of a century ago and they still are plans.

They give an idea of China's need for a strong government to turn plans into more than lines on paper. If China is to grasp the opportunity ahead, it must act. Chungking's official Central Planning Board has elaborate plans for finance, commerce and industry, lusty brain children which have not yet come to life.

The United States took 150 years to develop into an industrial nation. Japan did it in 75 years and the Soviet Union in 25. The two latter had strong centralized governments. China is habituated through the centuries to the individualism of the United States, not to blind obedience to officials and to the regulations of a central government. Not only must thousands be trained to the machines but the ways of its people—and its officials—must be changed.

The officials are confident that the task can be accomplished in ways that are Chinese and with the tools and tech-



Under postwar conditions, China expects its painfully low standard of living to rise. As exports increase to countries Japan formerly supplied, her industry should develop

nical skill of America. Before the latter are supplied, China must clear the road ahead.

The United States is the preferred creditor for the hoped-for \$10,000,000,000 loan to finance industrialization. The amount is several times the total Chinese capital invested in its own country.

Whether it is entirely a government loan or includes loans and investments of many private firms, the creditors are entitled to know how the work is being done and how the payments will be met.

That means deciding first whether China has a stable government, not only for the present but also for the future. Loans, investments and business are not for the moment but for the years. To know how the job will be done, the investor must decide whether the officials are capable and dependable, whether they have the wholehearted support of the people, the hazards from catastrophes of nature or from the turmoil of politics and the speed of turning construction into paying production.

This is not lack of confidence in China but ordinary business precaution which would be required from borrowers at home.

A \$10,000,000,000 loan at five per cent would require \$500,000,000 a year for interest alone. If it expects such a loan, China must show how it can meet the payments.

Has a balance of trade

THE Chinese who suggest it, however, do not see such help as entirely one-way trade. Its exports to the United States in the past have consistently exceeded its imports from this country. One-fourth of its trade was with the United States, in late years exceeding that with either the United Kingdom or Japan.

Under changed conditions after the war, China expects its painfully low standard of living to rise, increasing individual consumption and national purchasing power.

Restriction of certain imports also is proposed to increase funds available to buy industrial equipment. To compensate, without reducing the already low living standard, domestic production must increase. With all the hopeful figuring, it is impossible to reach a total which can meet the service charges on a loan of that size. The United States, if it is to help, must put the rosy plans of the Chinese on a practical basis.

That may be done, but another issue of deeper concern to thousands of Americans must be settled if the United States is to cooperate wholeheartedly with China. The American business man and industrialist, the missionary and the doctor, all those who have taken such important parts in the past development of China,

must know whether they can continue their private investments and lifework in the country. The prospects are not too optimistic.

Though Japan's battlecry of "Asia for the Asiatics" is interpreted by other Asiatics as "Asia for the Japanese," it has awakened the people of the Orient. The issue of race and color which always was in their hearts has come to life. They will accept the white man as an equal, never again as a superior being in their own country. The danger is that the pendulum will swing to where the Occidental is not even an equal in the Orient. The sun has set on the age of European imperialism in China. The brief span of Japanese imperialism sounded its death knell.

Foreigners' privileges are lost

THE greatest changes which foreigners will find in China will come from the disappearance of extraterritoriality. The many-jointed word brought the foreigner's home country to China, put him and his business in a position similar to the diplomatic immunity of his Government's representatives and property.

The old system built up a class of foreign business not duplicated in any other part of the world. Reports were that foreign firms handled 83 per cent of the country's prewar foreign trade and provided 88 per cent of the custom revenue.

In the New China, the foreigner loses his special status and is under Chinese law, but not with all the rights of Chinese. The entire country is open to him, as to any Chinese, but the law forbids foreigners from engaging in many kinds of business.

Under the proposed set-up, railways, shipping, airlines, telegraph, mining, steel mills, and public utilities will be government-owned. Foreign loans may be accepted and private companies may operate them.

Under the present laws, foreigners cannot own land in China. Foreign physicians, veterinarians and engineers can be licensed to practice but licenses are not granted to foreign lawyers or accountants. It is expected that coastal and inland shipping will be forbidden to foreign bottoms, as in other countries, and that pilots and officers down to third mate must be Chinese.

In brief, it appears that Americans can conduct certain lines of business but if the business operates as a company or corporation, Americans are permitted only a minority interest. Foreigners may hold stock in corporations engaged in trade, industry or operating government monopolies, all naturally under government supervision, but 51 per cent of the stockholders and directors, including the president, must be Chinese. While the laws give a foreign creditor the vague right to supervise a company's expenditures, its administration must be Chinese. It is planned to restrict foreign banks, if they are permitted at all, to international remittances and foreign depositors.

Special restrictions

FOREIGNERS have the same access as Chinese to courts—the right of habeas corpus was established only a few weeks ago—but the constitutional guarantee of civil liberties does not apply to them. Like Chinese, they are subject to the laws governing the press and associations. The latest restriction bars foreigners from conducting primary schools for Chinese children.

These are a few of the loose ends and conflicts which observers find in China today. They must be untangled and tied up before American capital and technical ability can safely take part in China's great plans for industrial development at home and for expanding commerce in Asia.

China, even its higher officials, is divided between two schools of thought—those with confidence based on the enduring country's survival through the ages who believe that its own resources and ability are sufficient to build future greatness and those who believe that American cooperation can be invited and welcomed without endangering the country's birthright of nationalism.

The Chinese with justifiable pride in his racial culture, is slow to leave the ways of his ancestors. Unlike the Japanese, he is not a doubter of his own ways who imitates others. The Chinese is practical as well as thrifty and industrious. China is part of today's world, realizes its strength and power and that its pace and production are not for China alone. The spirit of China scorns the machines because

(Continued on page 90)





Air parks may offer convenient landing facilities in addition to commercial airports

When You Plan an Airfield

By C. C. CAMPBELL

"BLANKTOWN plans a bond issue to raise \$1,000,000 for the erection of a modern airport. Blanktown, as you know, is in the center of the Midwest, equally distant from five large cities. . . . We have plenty of good land for an airport, and our business men are ready to build suitable hotels and make other improvements, in addition to subscribing to the cost of the airport, to make this the air center of all this section. . . . Please advise us where and how to get plans for the construction of an airport to fit our needs. . . ."

This is one of an increasing number of letters being received in Washington by government and other aviation groups. It was accompanied by a printed map showing Blanktown strategically situated, as the city fathers contended, right in the middle of things. Both heavy and dotted lines radiated from Blanktown to show how transcontinental and local airlines would find a town convenient as the hub of a busy aerial network.

It looked great on paper. One could imagine the enthusiastic interest of all

MANY towns want large airports which the air traffic in prospect cannot support, yet there is much need for more moderate landing facilities that will help the growth of aviation and the local community

the townspeople and their eager anticipation of throngs of air travelers stopping off at Blanktown between trips, not to mention the business that would eventuate through housing and servicing planes and their crews, installations of repair depots, and other direct assets to be acquired when Blanktown became an "air center."

Unfortunately, a brief survey by Washington officials spoiled the picture. A checkup showed that Blanktown has a population of 8,000. True, it is equally distant from five cities, but regular scheduled airlines are now operating between these centers, with no thought of even hesitating at Blanktown.

The town is a valley between two

ranges of hills, making landings practicable only up or down the valley and, weatherwise, being subject to line storms. In addition, 20 miles to one side and 32 to the other, are much larger cities which could also qualify as being placed in the "center" of the Midwest. These are present local railroad and bus hubs and therefore would be natural terminals for local air travel.

A letter has been sent recommending that Blanktown's ambitious plans be shelved, or at least postponed until expert advice can be obtained. In the meantime, the town officials are urged to consider a \$10,000 air park on flight strip which will undoubtedly serve the town's immediate needs, and can be ex-

panded as the community finds it expedient in the future.

Considering the optimism which had been engendered, however, it seems unlikely that Blanktown will accept this advice. If it does not, the result may be a white elephant airport and an insistent public debt.

A new industry grows up

AMERICA has suddenly become air-conscious. Under the impetus of war, aviation has advanced further than it might in a decade or two in normal times. The future progress of aviation, and its probable effect upon America, has struck the public fancy and has become a leading topic of conversation. Afraid of being left behind, business men and communities are rushing to find their places in the new field.

Great new manufacturing industries have been built up. Apart from the mammoth airframe factories, the making of aircraft engines, engine and airplane parts and components has provided industrial opportunities in hundreds of communities. Hundreds of thousands of young people have been trained in flying or in pursuits closely related to it. Top government officials predict a new era of personal flying. Cities and towns envision new trade from airline traffic and from the development of business and private flying.

This is a healthy, essentially American reaction which will undoubtedly add to our country's welfare, and quite possibly to our individual prosperity, provided the situation is approached from a sound, practical standpoint.

Aviation eventually will transform many of our living habits. The day may even come when we shall all fly around overhead as nonchalantly as we drive our cars, and some day we may park the family helicopter on the front lawn. No one really knows, and certainly the picture has been painted in most attractive colors.

Nevertheless, those closest to aviation warn that this is a good time to sit down and consider just how close we are to realizing these visions. Common sense indicates, they point out, that even if every prediction for the future of aviation comes true, it cannot happen overnight.

There is bound to be a transitional period which experience in other fields demonstrates will be accompanied by headaches, investment losses, business failures and accidents.

Many people who step into one of the various fields which aviation progress will open up, will emerge successfully. Others, both individuals and communities, will come to grief. It is only good business judgment to investigate some of the possible difficulties before we permit ourselves to be overwhelmed with visionary schemes.

As a matter of fact, leading executives of the aviation industry itself have been among the foremost in urging caution. Every other form of transportation, when it was new, had its period of inflated enthusiasm during which reckless ventures gave the new industry a black name—that was found to be unjustified later.

Aircraft manufacturers, airline operators, air school heads, and others who

hope to build the future of aviation upon a secure basis, seek to discourage misleading exaggerations which may lead to undue optimism.

Because of its splendid record in the present emergency, aviation, and nearly everyone connected with it, enjoys the public good will. It wants to keep that good will.

Take the matter of airports, for instance, since that is the aviation development which is attracting special interest now.

A landing for every town

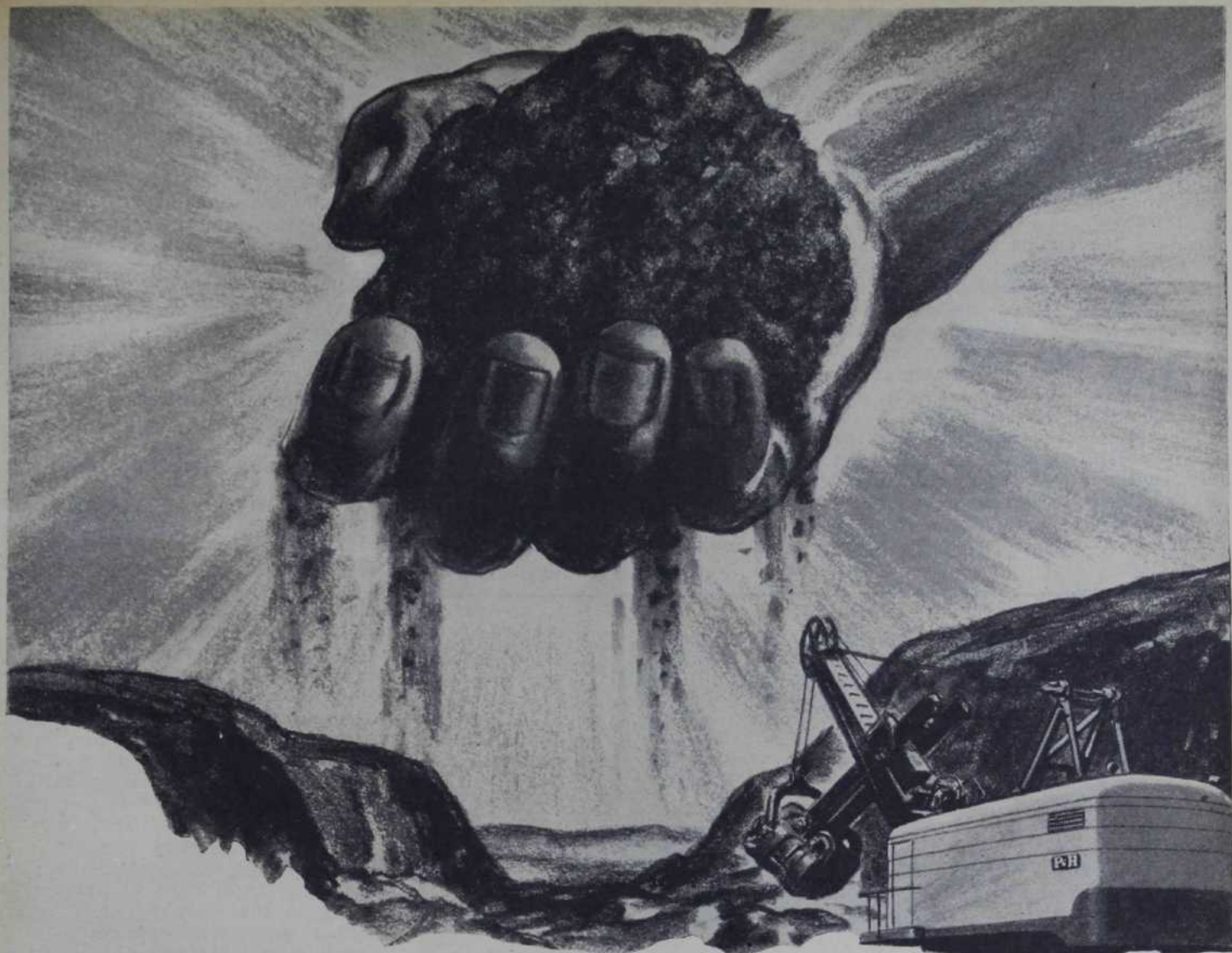
IT is being advocated, without authoritative contradiction, that every progressive city, town and community plans some form of landing facility for airplanes. A "landing facility," suitable for the requirements of an individual community, may range from a single sodded runway, satisfactory for light plane landing and take-off, and costing only a few thousand dollars, even including buildings, to an elaborate, efficiently operated terminus, with extensive hangars, concrete runways, paved approaches, and other important facilities, costing millions.

In between, there will be many gradations of size and utility depending upon the needs of the community.

The word "airport" is popularly used to designate such landing facilities, regardless of size or type. This is correct, but often misleading. In general aviation practice, "airport" has come to mean a terminus for scheduled commercial airlines. On the other hand, many a cow pasture in some cross-roads



Air strips, often adjacent to a highway right of way, offer a very economical but practical landing place for planes when the air traffic is not heavy enough for a commercial airport



"All things come from earth"

Those are the words of an ancient philosopher, but the years haven't changed their simple truth. Sift a handful of earth through your fingers and you touch the source of all material things — the source of your food and your comforts, of miraculous things as yet unknown.

But mass requirements aren't reckoned in handfuls. When the need is for thousands of tons — the earth guards its treasures well. To wrest them free you have to scrape... dig... blast! It's tough digging all the way, a job for huge, rugged machines.

That's the job that P&H Electric Shovels are

doing today, swiftly and at lower cost... freeing great stores of coal, copper, limestone, iron and other essential materials.

Perhaps you've seen them, these monsters of the open pit. But what you haven't seen are the years of research and development which made them possible. It is this experience and "know-how" that have made P&H a leader in applying electricity to the movement of heavy loads for over sixty years.

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community bears the same proud designation.

"Landing facilities" seems to be the only common, all-embracing term now available. This includes *airports*, of any size and type; *flight strips*, which are usually areas of land located as part of a highway to accommodate plane landings; *air strips*, which need not be adjacent to a highway, but which, as the name implies, consist primarily of single, or L or T landing strips; *flightstops*, which are in many particulars identical or similar to air strips; *air parks*, with L, T or X type runways lately suggested as a suitable identification for community built and operated landing facilities less ambitious than airports; and *air harbors* for water landings.

However, in the final analysis, the name probably does not mean a great deal, except in that it may lead to unwise rivalry between communities. Presumably, most people will go right on calling their town's airplane landing

place an "airport." Certainly, human nature being what it is, Brownstown is not going to be content with a facility called an "air strip," if the neighboring town of Jonesboro sports an "airport."

Landing facilities, aviation authorities point out, no matter what they may be called, cost money for construction and maintenance. Some will turn out to be splendid investments, others complete duds. The difference will probably be traced to the foresight and expert advice obtained, and, it must be admitted, to a certain amount of luck, too, since no one can accurately gauge the future of this new type of transportation.

It is logical, though, that some planning should precede building; that the popular, almost romantic appeal of the subject should be harnessed to a few indisputable business considerations.

Unfortunately, there seem to be no hard, set rules that can be used for guidance. For instance, to the very first

question that is asked, it is almost impossible to find an authoritative answer. The natural query is:

"What size town or community can afford a landing facility?"

In all honesty, professional planners must answer: "Who knows?"

Too many angles must be considered to permit generalization.

Three years ago, several states foremost in airport planning set 5,000 as the population minimum of a community that could or should afford such a facility. Lately, this minimum has been trimmed down, in most cases, to 2,000. One state official recently said, "200." Yet it is agreed that numbers of residents is not necessarily the determining factor.

A guess for traffic survey

OF more direct importance is the question of potential air traffic. Here again, because of the uncertainties of future aviation development, there must be some guesswork. At the same time, some factors are well enough known to permit preliminary figuring.

The first consideration is the type of air traffic which may be expected. This breaks down into two general classifications, air transport and private flying. Airline operation, on trunk lines, feeder or local lines, comprises the first.

If a community now has commercial air transport, it should be comparatively simple to ascertain present traffic and the possibilities of its growth. If there is, at present, no commercial air traffic, inquiry directed to airlines operating in the vicinity should reveal whether any is contemplated.

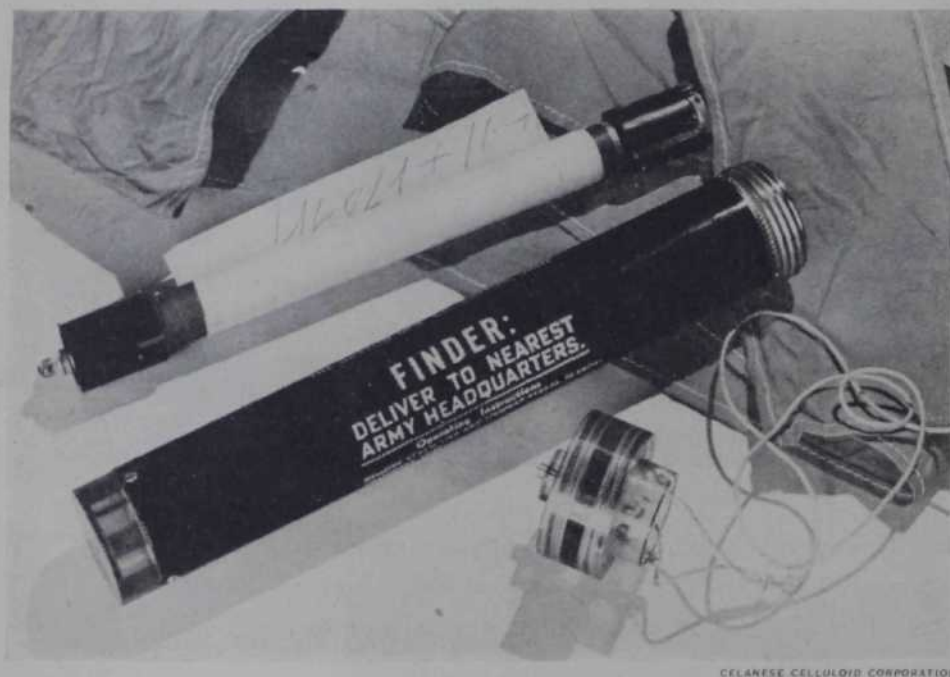
At present hundreds of applications are on file at Washington for airline routes. Some of these ask for foreign routes, some long distance within the United States, others for various feeder and local lines. The Civil Aeronautics Board in Washington will supply a list of these applications which might affect your community.

It must be appreciated that filing of an application does not mean that a certificate of operation will be granted. Obviously, a large percentage of the applications will be turned down. But applications do indicate possible air transport plans. Applicants for air routes should be willing to disclose whether their proposed lines would approach your community or not, or whether the airline operator would be interested in doing so, provided facilities were made available.

Whatever is done in this manner must necessarily be inconclusive until the Civil Aeronautics Board acts, but it offers a starting point for estimating possible future commercial air traffic that would reach your community.

To build an airport or other type of landing facility designed for commercial traffic without some definite indication of potential use for that purpose would be somewhat like building an expensive railroad station without know-

(Continued on page 65)



CELANESE CELLULOSE CORPORATION

Message Container Type A-78

When an army pilot wishes to drop a message to ground forces, he will probably enclose it in this new message container which can be safely thrown from planes at a height of 5,000 feet or more—and which is equipped with lights to make it easy to locate at night.

The unit measures less than a foot in length, weighs about 12 ounces, and consists of an outer tube of fiber protected at either end by tough transparent plastic caps into which light bulbs are fitted. The inner core contains two pencil type flashlight batteries. The message is wrapped around the core and inserted in the fiber case. A vivid orange streamer serves as an identifi-

cation aid and also helps parachute the container downward.

The use of the tough transparent plastic caps serves a double purpose: as lenses for the light bulbs at either end; and to protect the container against the terrific landing impact since its construction causes it to land on end.

Message containers are normally carried in the cockpit of the plane. When a message is inserted for use, the plastic end caps are reversed causing the bulbs to make contact with the battery and light up. The streamer is wound so it will not foul on the plane, then the whole thing is tossed out the window to be picked up by the ground forces.



The Lady had a Baby

MR. FLINTHEART TYCOON, about to complete his work in Seattle and anxious to get back east to his plant, calls: "Eliot 6800... Drawing room on the Olympian for Tycoon to Chicago, please... No chance? A compartment, then... None for thirty days? Maybe a bedroom?"... Mr. Tycoon compromises with dignity and takes a lower berth.

On boarding the Olympian he found the Lady—who was to occupy the upper of his section—*had a baby*. It seems the Lady had been bidding good-bye to her Tokyo-bound husband, and the baby to his or her (Mr. Tycoon never knew which) Tokyo-bound father.

In the smoking room, an hour out

of Seattle, Mr. Tycoon was heard telling a hard-boiled colonel—"First time I've ridden in an upper since I was a youngster beating my expense account. But confound it! What could a man do?"

Later the colonel was chuckling as he switched off his berth light... the Pullman conductor was chuckling with the steward over a late coffee... "Imagine! Mr. Tycoon says to me, 'Give my lower to the Lady with the baby.'"

★ ★ ★

Aboard transcontinental trains, such as the electrified Olympian, little happenings make big news. Mr. Tycoon, usually distinguished as "the prominent industrialist," was distinguished by his fellow travelers on this trip as "the man who gave up his lower to the Lady with the baby." It was a new experience, and Mr. Tycoon enjoyed it, thoroughly.

The incident illustrates the unselfish spirit that's kept train travel free of rationing. It's a spirit that augurs well for the future—holds promise for the Babies of the Ladies.

The Milwaukee Road

SERVING THE SERVICES AND YOU



Man Who Holds the Purse Strings

By HERBERT COREY

HAROLD D. SMITH, Budget Director, divides his time between efforts to save government money and keeping irate officials pacified

FIVE YEARS AGO he was regarded in Washington as just a nice young fellow. They come and go, these young fellows, unremarked unless they pull some remarkable boner, or make unusual noises. He was not really young, but he was blondish, with a slight fuzz of mustache, a rather low voice, and a middle-western disposition to be friendly. There was really no reason why Washington should pay any particular attention to him.

He had never been in politics. He couldn't swing a precinct. Washington regarded his job as in about the same class as the last hack in a parade. Just something to ride in.

The Bureau of the Budget began life in 1921 as a pious aspiration. Perhaps as a sop to keep quiet the people who were continually declaiming about the Government's messy business ways. It had rooms in the Treasury and was under the direction of the President. People thought it would keep the President informed on how much he could safely spend. If he overspent the Bureau would stop him.

That's what people thought.

The national business was being conducted like a grab bag at a church fair. The heads of the departments and agencies put in their hands and pulled out what they could. They made up their own estimates of the money they needed and presented them to Congress direct. It was no one's business what the total might be. It was a poor department, or bureau, or agency that could not fix up an argument that could get money out of Congress.

The Bureau could recommend but it could not control. It was merely a kind of bookkeeping unit, with powers to go jump in the lake if it did not like what was going on. People gave it little thought.

In 1939 the Reorganization Act was passed and the Budget Bureau was taken out of the Treasury and attached to the President's office. Not much attention was paid to this. A few people grumbled that the President was reaching out for more power, but they could not see just where he could squeeze any power out of the Budget Bureau. But the Reorganization Act was filled with voltages. Lindsay Warren wrote the Act on the basis of the knowledge his years in Congress had given him and on his distaste for sloppy administration. Oddly enough, or maybe not oddly at all, he is now the Comptroller General, and his business is to ascertain whether the Government's money has been well and truly spent. Now and then he even gets some of it back.

The new law put all sorts of powers in the hands of the Director of the Budget. Every department, organization and agency—barring the 50-odd government owned corporations—must channel their requests for funds through the Bureau. If the Director does not like them, he may send them back for re-cooking, throw them out the window,

or add to them. In any case, he can do what he pleases. The department, organization or agency has an appeal to the President. They always take it, but it happens that the President relies on the Director of the Budget. He is enormously useful in many ways. If he is overruled, it is, in 99 cases out of 100, on a matter of policy.

The budget goes to Congress in a book weighing four or five pounds. The Appropriations Committee of the House passes on it, sometimes adds to an item or subtracts from another, the House accepts it. It then goes to the Senate, which usually does something to it. The remains go to a conference committee of the House and Senate, is passed by both Houses, goes to the President for his signature and becomes a law.

Usually in a form resembling that which had been originally ok'd by Harold D. Smith.

That's him.

The job is important

HE'S the Director of the Budget. If his name has been withheld up to this point it is because he sincerely believes that the job he is doing is more important than his personality. Some office-holders do not love him, as he has remarked. But they do not stamp on his toes. Persons wearing dancing pumps rarely stamp on toes in steel shod boots—and Mr. Smith's boots are steel up to the kneecaps. He can, and sometimes does, in obedience to the identified policy, which he often shapes for the President:

"Study the organization, activities, and methods of the departments, etc."

To put it more clearly, he can rip a department to pieces by taking a bureau away, giving it to another department, abolishing it, or choking down its money. Or granting it more money, or giving it a terrible shellacking because it has not done its job well. All such changes would be in the form of recommendations to the President. But it has been observed that the recommendations are usually ok'd. This was the case with Secretary Perkins, of Labor, who lost her pet pet, the Immigration Bureau, to the Department of Justice.

There are other instances of the sort.

Chemicals that protect your car!

HERE ARE THREE CHEMICALS that you are probably better acquainted with from the way they *act* as anti-freeze in your car than from the way they *look* in print.

These chemicals are manufactured in large quantities by CARBIDE AND CARBON CHEMICALS CORPORATION. Uncolored, they are water-white. To the chemist who must know what they will do in your car, they are compounds of Carbon (the atoms of which are shown here in the molecular models in *black*), hydrogen (orange), and oxygen (blue).

ETHYLENE GLYCOL, ETHANOL and METHANOL are the bases of anti-freezes and they help to take one of the worries out of winter for millions of motorists.

TODAY AND TOMORROW

Over the years, CARBIDE AND CARBON CHEMICALS CORPORATION and other Units of UCC, notably NATIONAL CARBON COMPANY, INC., have kept at their research—both in the laboratory and on the road—for the constant improvement of anti-freeze and anti-rust protection for your car. This is an important reason why you can depend on the following whenever and wherever you find them:

"Prestone" ethylene glycol-base anti-freeze. One "shot" gives all-winter protection.

"Trek" methanol-base anti-freeze, which is again available to the extent that the production of methanol has caught up with its war-critical uses.

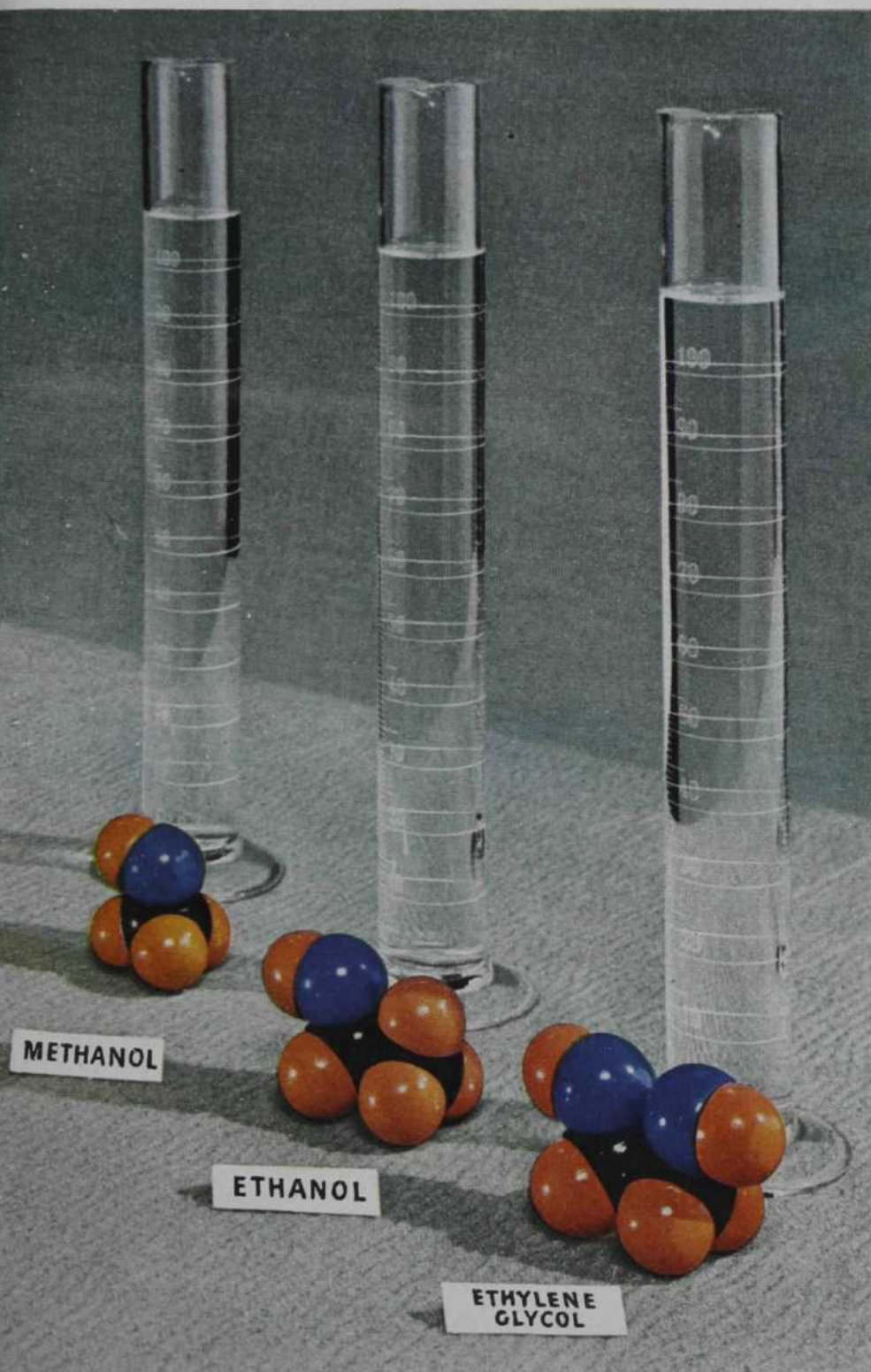
"Blue-Flo" ethanol-base anti-freeze. Not being manufactured this year because ethanol (ethyl alcohol) has a bigger war job to do.

Certain other anti-freezes formulated and manufactured by Units of UCC for large national distributors.

"Rustone" corrosion preventive which, when added to the water in a clean cooling system, inhibits the formation of rust.



Car owners are invited to send for the book N-11, "Manual of Cooling System Service." It will be sent without cost or obligation.



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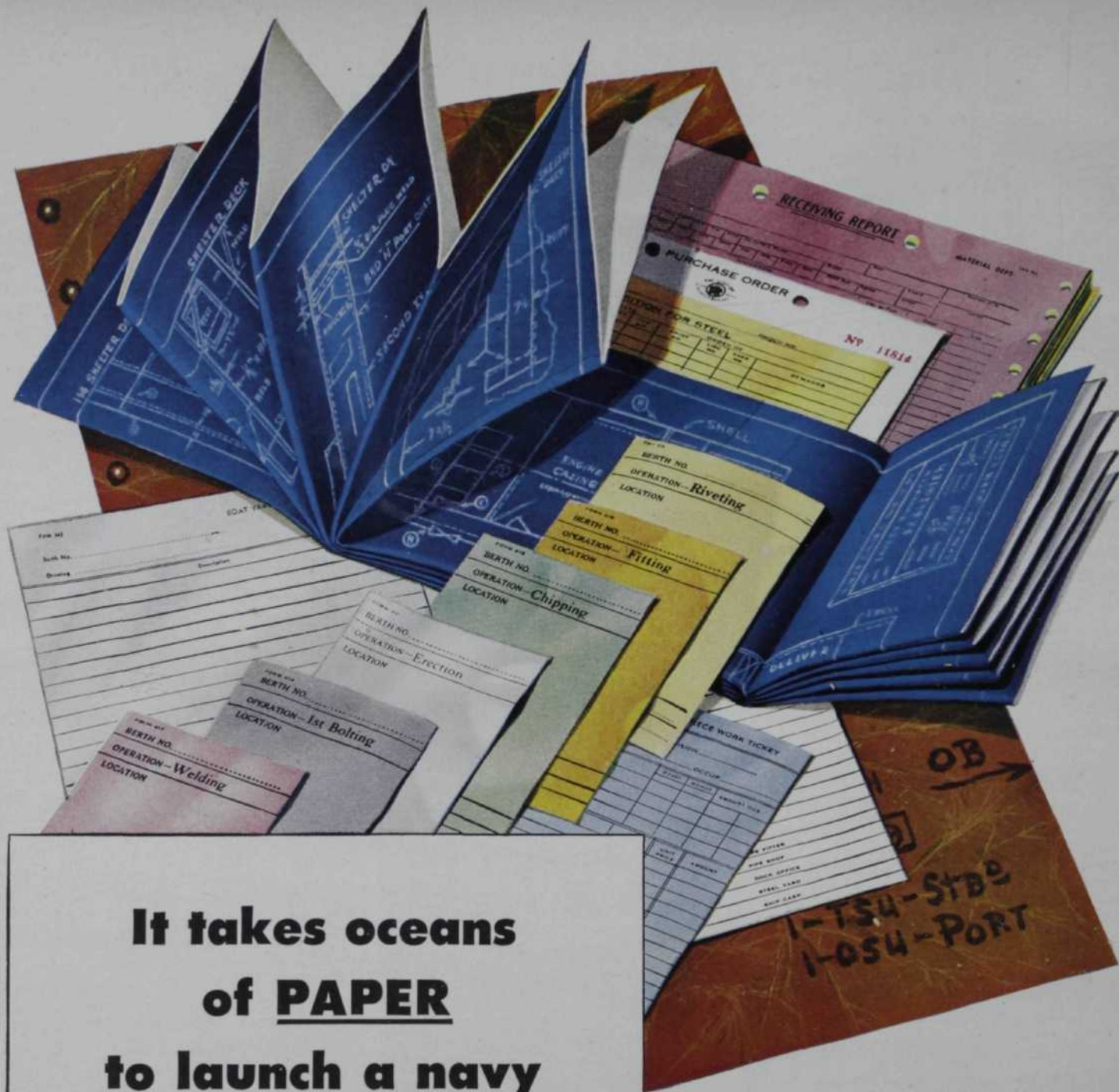
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It takes oceans of **PAPER** to launch a navy

In the quiet of secret drafting rooms . . . and amid tumult of teeming American shipyards . . . PAPER is helping to launch the mightiest navy the world has ever seen.

Paper blueprints—200 acres of them in a single year in a single shipyard—keep our vessels streaming down the ways.

And shipbuilders tailor steel armor for men-o-war with paper "dressmakers' patterns," full size. These cutouts, called "templates," make construction faster, simpler, more economical.

Truly, paper is an essentiality. It performs more than 5,000 tasks in creating the unconquerable armadas of the United Nations.

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NEENAH, WISCONSIN

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While conserving our nation's critical resources wherever possible, we are manufacturing the highest quality Kimberly-Clark paper that can be made under wartime restrictions.



SAVE WASTE PAPER—Paper is a vital war material. It is the duty of every American to make full use of each piece—to save all waste paper and have it collected regularly.

*TRADE MARK

The most notable, perhaps, was one in which Secretary Ickes of Interior figured as the abused man:

"What the hell do you mean?" asked Mr. Ickes, after undergoing an operation, "by coming into town on the eight o'clock train and tearing up bureaus that have been active for 100 years?"

Mr. Smith's jaw, which is a rather notable jaw at second look, clicked lightly at Mr. Ickes:

"If they have been in a rut for 100 years it's time somebody tore 'em up."

No harm done. They lunch together about once a week on some form of dairy food. Smith has such a way of getting along with folks that he is the Administration's more or less official pacifier. Henry Wallace and Henry Morgenthau tangled over how farmers should farm their farms but, when the difference became a rift, Mr. Smith brought them together again. Not that they send birthday gifts even yet. For what he considered sufficient reasons, Paul McNutt was trying to get farmers off land that would not sprout a white bean and move them to good soil. The Farm Security Administration was paying them to stay on the sand and gravel patches. Mr. Smith reconciled them to some extent. Henry Wallace and Jesse Jones of the RFC put on a show that held the admiring attention of the multitude for a week or so.

Perhaps Mr. Smith tried to get them to kiss and make up. Anyone interested is invited to ask Mr. Smith. Donald Nelson and C. E. Wilson also resisted emollients.

Weight for reconciliation

PERHAPS his routine of success in reconciliation is not wholly due to his charm of manner. The unreconciled know that he comes not only with roses in his hand, but with the weight of the President's office back of him.

The President does not enjoy the spectacle of his close friends and office-holders tearing into each other in public and they know it. A list of the pairs whom Smith has forced to shake hands before they left the ring would be a long one. It may be that they bite the rugs when they reach the dressing rooms. No one can know about that. Another of the duties of the Director of the Budget is to:

"Establish control over the utilization of supplies and equipment by government agencies—"

That reads as harmless as an instruction for tying flies. But back of it are 300 skilled, hard-hearted, and experienced investigators. When Mr. Smith took over the Bureau, he found about 75 men and women in it. It got along on an appropriation of \$187,000 a year, of which \$40,000 was spent in printing the five pound report heretofore referred to. The list of his predecessors includes such eminent men as Lewis Douglas, who quit in a dudgeon because he could not write a budget with any power behind it, and Daniel W. Bell,



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Looking ahead to a constant succession of war contract terminations, and to further easing of controls on production for civilian use, more and more companies are taking steps which will

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We will finance all your purchases of new or used machinery and equipment from manufacturers or the Government, under one uniform, low-cost plan with payments over a period of years. Details on request.

YOU CAN arrange immediately to have all the outside cash you may need in changing over your business for peacetime operation . . . and in carrying it through to self-supporting profit. Moreover, you can make this foresighted arrangement *under a simple, flexible plan which involves no interference with your management . . . places no restrictions on your operation.*

This service lets you carry forward your reversion program under your own control . . . with a known supply of cash ready to use when you need it. It eliminates the possibility that any delay in turning wartime assets into cash can hold you back in the race for civilian markets.

Take the first step now. Write, wire or telephone the nearest office listed below and let us give you full information.

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THE LITTLE FELLOW knows and wants good protection when he sees it. And business men who have experienced its benefits, know Hardware Mutuals *policy back of the policy* gives them better insurance protection.

The *policy back of the policy* is simply a way of doing business that makes your interests our first consideration. It provides a type of service that in thoroughgoing fairness and cooperation extends beyond the mere written stipulations of the policy. For example, in Workmen's Compensation and Liability Insurance, a complete safety engineering program is tailored to your individual plant needs. Claims are handled promptly—always in a sympathetic, equitable way that fosters good industrial relations.

The *policy back of the policy* safeguards your interests also in other types of insurance—Automobile, Fire and allied lines, Burglary, Plate Glass, General Liability, etc. And remember this important fact: Dividend savings, made possible by insuring only selected risks, have been returned to policyholders. These total over \$87,000,000.00 since organization.

Experienced, full-time representatives provide convenient, nation-wide access to improved service and savings with the *policy back of the policy*. Send today for a free copy of our timely *Guide to Help You Employ Disabled Veterans*.

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CASUALTY AND FIRE INSURANCE

now Under Secretary of the Treasury, who resigned to bring Smith in, because he was so busy in his Treasury job that he had neither time nor inclination for it. None of Smith's predecessors had ever asked for enough money to make the Budget a real going concern, for two reasons:

They hesitated to ask for more money coincidentally with suggesting that other agencies get less money.

There was no weight of authority behind the Budget Bureau anyhow.

But Mr. Smith asked for and got the money he needed. Now he has 600 employees. They go out and get things. When we first went to war, it was on their studies that the President was able to base many of his recommendations for funds needed. They cocked eyes at the bomb bays in the new planes and suggested that the bays had best be made big enough for the bombs to go through. Plans for an airfield in Africa were revised after they had taken a look at the plans and the field. They are now working out a scheme by which surplus employees can be ousted from desks and salaries when the war ends.

New laws are coordinated

THE Bureau performs the functions formerly vested in the Federal Board of Surveys and Maps, which was abolished, and controls the collection and issue of government statistics and the Government's printing and binding. In the olden days the head of a department, agency or organization might feel the need for a new law. Thereupon his legislative officer wrote a draft and sent it to Congress. On the theory that he knew what he wanted, it was usually made into law. No one bothered to find out whether the law was needed, or whether it conflicted with laws then on the books, or whether it might mess things up in other ways. Now all such legislative desires go through his hands first—then to the President as a recommendation—then to Congress.

In the same fashion, government field services are examined. If improvements are needed or agencies fail to coordinate, recommendations are made.

At the moment an inquiry is being made into the questionnaires which have so annoyed business men.

Mr. Smith finds that the business men who get into the Government are the great lovers of questionnaires.

"You wouldn't think so. But they write longer and more detailed questionnaires than the regulars, and defend them more positively."

He comments, however, that:

"The heads of departments defend their files and their personnel to the very death."

One shot remains in the Smith locker.

When Congress has appropriated money and placed it to the credit of the agencies in the Treasury, he has the authority to make sure that the money is being spent for the purposes set forth in the law. Therefore he retains ten per cent of each total granted to a depart-



...A NEW PAYROLL PROBLEM FOR YOUR BUSINESS!

The growing problem of fast, efficient payroll handling will become further complicated on January 1, 1945, when the Individual Income Tax Act of 1944 goes into effect. Determining employees' taxes to be withheld from wages will be more complex than it now is.

Because tax determination must come first, less time will be left for actual writing of the payroll. A new peak will develop—unless measures are taken to prevent it.

To help you overcome present payroll writing difficulties and avoid new ones, Burroughs offers a comprehensive new study, "Payroll Peaks," packed with constructive suggestions. Burroughs also offers help in computing employees' withholding taxes on and after January 1, 1945, in the form of government-approved withholding tax tables for weekly, bi-weekly, monthly and semi-monthly payroll periods. You will get much benefit from these latest Burroughs helps. Send for them today.



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FIGURING, ACCOUNTING AND STATISTICAL MACHINES
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"Payroll Peaks"—an unusually comprehensive booklet, graphically describing the growth through the years of payroll peaks—and measures to level them. It discusses several complete payroll plans, their comparative merits and their suitability to various accounting needs.

Withholding Tax Tables—for establishing withholding tax figures as prescribed by the Individual Income Tax Act of 1944, effective January 1, 1945. Printed on heavy card stock, these easily-read bracket tables are a great convenience to employers who elect not to compute the exact tax on each employee's earnings.

WITHHOLDING TAX TABLE—MONTHLY											
\$0	\$1	\$2	\$3	\$4	\$5	\$6	\$7	\$8	\$9	\$10	\$11
0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0

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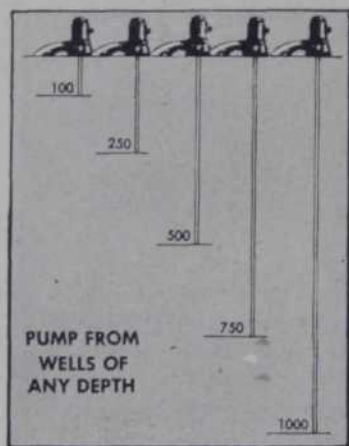
☐ Send me your new booklet, "Payroll Peaks."
☐ Send me _____ withholding tax tables for () weekly, () bi-weekly,
() monthly, () semi-monthly periods.

Name _____
Company _____
Street _____ City _____

TAP

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with a Peerless



Water levels are receding in many parts of America. This critical situation was discussed most forcefully in a recent issue of The Saturday Evening Post. It's a problem that confronts many pump users—perhaps you.

To tap the lower water levels you need a Peerless Deep Well Pump. Look ahead. Make provision for a dependable source of water for years to come by going deeper for your water. Peerless Pumps will lift water from any depth and can be installed to meet the receding water levels. Some are installed more than 900 feet deep.

Peerless Pump heads are designed and engineered to carry the load. The Peerless Turbo Head, with its built-in, hollow-shaft motor, water-cooled, over-size bearings and the shaft with oil or water-lubricated bearings, insures economical operation and high efficiency.

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ment—or organization or agency—in a reserve fund. If an emergency arises, he can loosen up as needed. If no emergency appears the reserve fund is held intact to the fourth quarter of the year. Then the activities of the departments, etc., are gone over. If one of them needs more money, it is granted. If not, it is turned into the Treasury at the end of the year. Last year's turn-in came to \$415,000,000.

So it may be that some people in the Government do not love him. Few ball players ever professed handsome admiration for an umpire. For all his blandness and his kindly exterior, the Director seems not to worry. He tells, in fact, an incident which seems to illustrate this attitude of the office holders. When he was Director of the Budget in Michigan practically every one in the state with money enough to buy gas had a special automobile tag with some fancy initials on it. These tags greatly improved the egos of the car-owners. A Jones with an "XYZ 200,171" tag felt himself a social cut above a Brown with a mere "Michigan 200,172." These special tags cost the state considerable money for manufacture and bookkeeping. Various attempts to do away with them had gotten precisely nowhere. Somehow this letter from Smith to Governor Frank Murphy got into the newspapers:

"I am," wrote the Director, "a founding member of the Society of Budgeters. I therefore ask that a tag be issued to me bearing this inscription: 'S.O.B. No. 1.'"

Let's look a little at this man who isn't loved.

Worked with Kansas youngsters

HE began life in Lawrence, Kan., 56 years ago. His family lacked a good deal of money and, when he was a youngster, he worked in the fields like other Kansas youngsters. He learned to be a pretty good stone mason, bricklayer, carpenter and cabinetmaker between times. The dark and attractive Lillian Mayer Smith, to whom he was married in 1926, says that one reason she fell in love with him is that he has a fine tenor voice. Mr. Smith plays this suggestion down when it is placed before him, with blushes. He does not, however, deny her further statement that each morning as she walked to her classes in the University of Kansas she used to see him hanging by his heels from a rafter in the new house he was building for his father between studies—and singing magnificently.

It is admitted that he did hang by his heels as charged. He does not say whether this exercise was timed to occur as Miss Mayer walked past each morning. Mrs. Smith is now engaged in war work. They have four lively and energetic children.

And the Smiths now have a farm.

The Director often worked 14 hours a day when he was first getting the newly engined Bureau of the Budget to work. A four o'clock in the morning

finish was not unusual. He has worked around the clock. One reason for this is that he has always been intensely interested in the business of budgeting. Before he came to Washington he had been a budgetary expert of one kind and another for 15 years, or ever since he joined the Detroit Bureau of Governmental Research in 1926. This is a privately supported organization with the purpose of finding out what is wrong. Gov. Frank Murphy—later Attorney General of the U. S. and now an associate justice of the Supreme Court of the United States—picked him to find out what specifically was wrong with the Michigan budget.

He led all the lists

ALL the figures of the tripartite budget seemed to be right but the total was terrible. When the Reorganization Law was passed in 1939, and Daniel W. Bel indicated that he had had enough, the President asked his friends to look over the field and pick out some good men who might be considered for the office of Director, with improved and enlarged facilities for bossing the new bureau. Mr. Smith's name led every list.

He may not be loved. But it is certain that a good many good men know him.

For a time he could relax from his long hours by working on his wood turning lathe and, during a moderately slack spell, he bought a wreck of a house in Arlington and made it over into a pleasant modern home. Then he found a Virginia farm which for 200 years had been running down in the hands of a single family. For two days each week, when the budget does not get in his road, he works and supervises. He bought a second hand tractor which usually stopped working in the middle of the south field and personally tinkered it into good behavior. He had a grand crop of corn this year, weather conditions being allowed for. He is constantly in amazement at the progress which has been made in the science of agriculture since he used to fork hay into a barn, and is proud of his field of "wong," which is a barley the scientists of the Department of Agriculture found in the Far East—a finer barley than American farmers have been raising.

It is a good bet that he will be trying out the new Russian wheat, which does not need replanting for 25 or 30 years, and makes a good crop every year. The best moments of his life are when he sits on his front porch and looks over every acre of his big farm. In a rocking chair. He says of himself:

"I have never thought that I was very smart. But we are trying to implement good government and stifle bad. No budget office, if it is worth a damn, can run counter to the social forces of a democracy. In peace or war, good management lies at the core. That is my contribution."

Sometimes he votes Democratic.

If there is such a thing as a government housekeeper he is it. But he doubts if any one likes the man with the broom.



THE stirring "Song of the South" today is a thrilling Victory tune...keyed to the speed and needs of a nation at war...and sung in perfect harmony.

Its agriculture is flourishing. Tireless Southern farmers, raising *fighting* food, are performing miracles of production on their fertile fields.

Its industry is booming as never before. Skilled workmen in its busy factories are working day and night to fashion the weapons of war.

Its transportation service is efficient, dependable. Day and night, rain or shine, the Southern Railway

"delivers the goods"...because 45,000 men and women of the Southern have cleared the tracks for war.

Yes, there's "harmony" on the Southern home front...the harmony of Southern farmers, industrialists, railroaders, men and women in all walks of life working together, planning together—

To speed Victory! To help build a greater, finer Southland after this war is won!

Look Ahead...Look South!

Ernest E. Harris
President

SOUTHERN RAILWAY SYSTEM

The Southern Serves the South

Can We Have Too Much Food?

By JUNIUS B. WOOD

CURRENT TALK of surplus food and proposals for controls are premature and dangerous to our war effort

DOES the United States face a farm crisis—not a crisis of shortage but a crisis of surplus—and what can be done? From Washington come stories that the country not only has more farm products than it can consume at home or give away abroad but that each year, even each month, is increasing the surplus. They conjure up a terrifying picture of farmers diligently piling up wheat, cotton, steers and other tidbits of life until they and hungry mankind vanish in a flood of food and fiber.

All is confusion. War Food Administration is panicky over farm surpluses while James F. Byrnes, director of War Mobilization, urges Congress to appropriate \$2,000,000,000—others want \$3,000,000,000—to offset the influences of anticipated price-depressing surpluses and to curtail acreage of some crops. The President instructs the Secretary of Agriculture, who says there is too much food production, to provide farms for 1,000,000 demobilized soldiers to produce more food.

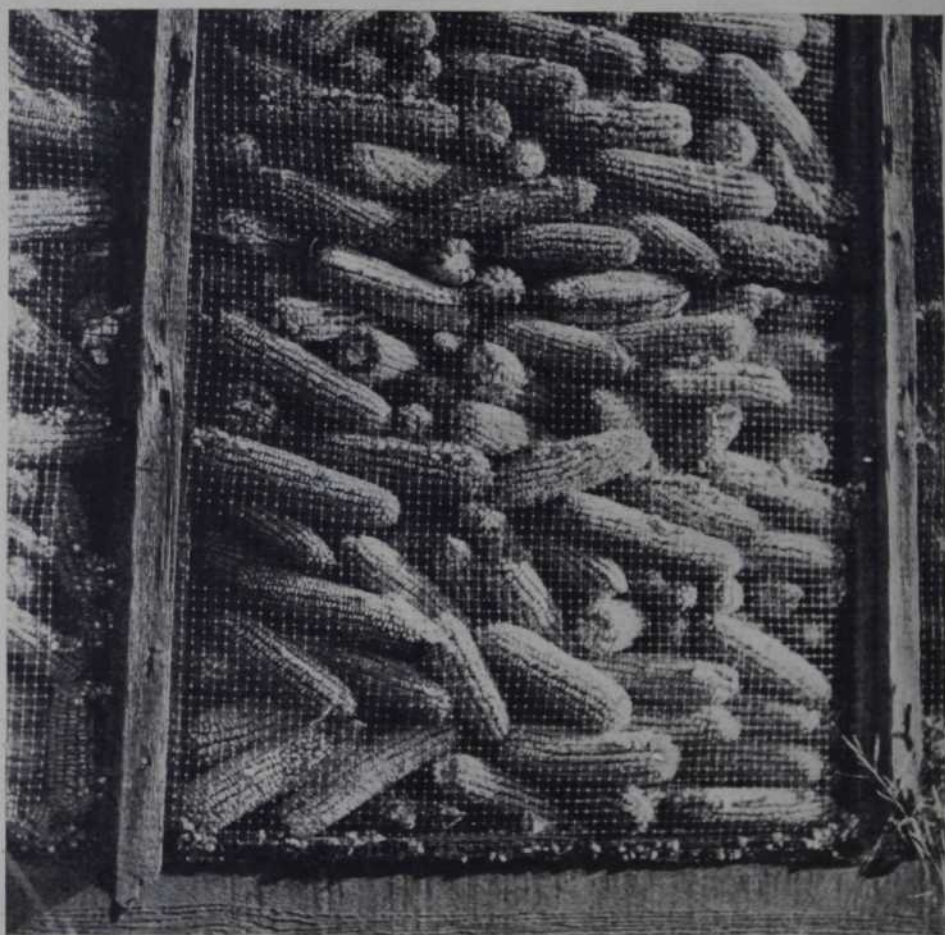
The housewife hears over the radio that the country has so much food that a population increase of 50,000,000 is needed, but she can still tramp to half a dozen stores and not get all she wants for a small family.

WFA says the pork surplus is so large that rationing is removed but the Department of Labor reports that one-third of the country's stores have no pork to sell. WFA records 7,000,000 more cattle than ever before in the nation's history and cold storage warehouses filled to 85 per cent of capacity, but the housewife may find no beef in the store and must come early to get even two ounces of butter.

No pancakes for breakfast but 138,168,000 pounds of butter are in the warehouses—one pound for every man, woman and child in the country and an extra pound for every family with a man overseas.

WFA begs everybody to eat eggs—just sold 15,200 pounds at 1½ cents to a shoe factory—while the cook who needs one—"Not so ripe, please"—may pay 70 cents for a dozen.

In 1919, the farmer was prosperous. In 1932, the pendulum swung the other



Human behavior and the vagaries of nature combine to turn crop surplus to shortage and back again with startling rapidity

way. That was diagnosed as a surplus and for eight years a surplus was "viewed with alarm." Then it was discovered that the surplus was a shortage and the War Food Administration was created to increase production. Consumption was rationed at the same time. This year, surplus again is the dragon to be slain.

Nature may cut surplus

THE Government's agricultural and food experts figure this year's surplus down to decimals. Unless something is done, they foresee disaster to the farmers and to the rest of the country. As to just what should be done, they have not decided, though several plans are suggested.

Others do not share the gloomy forebodings of ruin from abundance. They go by the theory that nature repeats and that crops move in cycles. They do

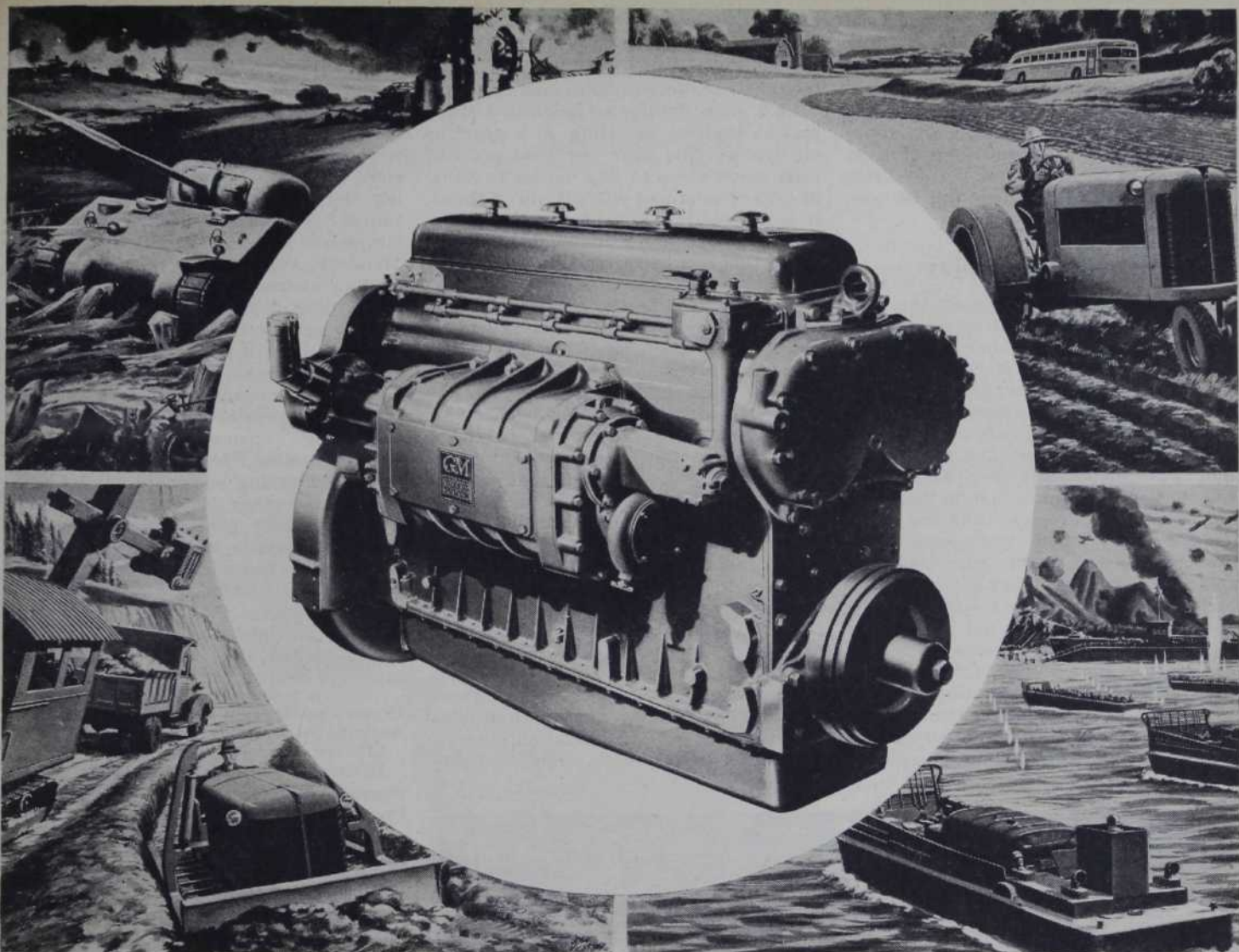
not anticipate a continuously increasing surplus of agricultural production. In fact, many of them contend that there is no serious surplus at present, even under the incentive of war production.

Estimating crops for next year, let alone for several years ahead, is reading the future from a crystal ball. There are too many unknown factors. No slide rule can compute the vagaries of nature or human behavior.

Our Food Administration has the benefit of the Agriculture Department's organization and experience with crop reports blanketing the country and carefully worked out conclusions. No other country has an organization which equals it. It is as efficient as human ability can make it, but that leaves it far from perfection.

Take eggs, for instance:

When WFA's "viewing with alarm" changed from surpluses to shortages, eggs were put on the production menu.



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**KEEP AMERICA STRONG
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Bureau of Agricultural Economics fixed a goal. A goal in this instance is the quantity of a specified commodity which should be produced in a given period, usually a year. The Bureau seldom is wrong in fixing goals—tastes and appetites are fairly constant—and it says the estimate for 1944 came within a few omelets of the eggs which will be consumed.

Hens lay a surplus

ONCE having fixed the goal, the economists must retire and leave production to nature. The farmer who raises poultry for a business, mother who gets the egg money for a new dress or a contribution to foreign missions and the 4-H boys and girls who are not slouches at farming, took over. The result was that, in August of this year, 323,049,000 hens, or 6,020,000 more than in the same month of last year—less than one extra hen for every farm—were scratching in barnyards and victory gardens when not taking time off to lay eggs. Poultry feed had been short and, according to the rules, there should not have been any increase, but there it was.

More than that, the hens fell into the spirit of the race and each one laid more eggs than she or her sister contributed in August of last year. As a result, the country had 2,425,000,000 more eggs for

who fixed the goal knew how many eggs would be eaten but could not tell what the hens would do—or the farmers or the weather. So surpluses come and go.

Last year, finding an onion in a store was as exciting as biting on a pearl in an oyster. This year our food pundits coax housewives to buy onions to hang in cellars so stores will get rid of them. It is not entirely because farmers have planted more acres in onions but because this is a better growing year and each acre has sprouted more onions. Next year may be the opposite; growers already prophesy another shortage.

Nature is like that. This was a big crop year but poor ones will come—less acreage planted, droughts or floods, unseasonable frosts or other hazards of weather. Mankind has never balanced farm production and consumption through the years. The best that nations have done, from the days of ancient Egypt, is to conserve the surplus of the fat years for the lean ones.

The farmer shapes his plans for future years. The hen which lays the eggs of this year will end in a stew and others will take her place. Last year, under the urge to produce more eggs, 544,263,000 pullets and chicks were on the farms. This year, with an egg surplus, there are 135,000,000 fewer, fair indication that the egg glut will not continue.

War needs have both stimulated pro-

Studies of the Bureau of Agricultural Economics fix present farm production in the United States at 138 per cent of the prewar average from 1935 to 1939. Lend-lease demands will diminish, eventually disappear. Last July, they were only half of July, 1943. The warriors will come home and continue eating—but not as much. A soldier consumes 5½ pounds a day, but as a civilian he will account for only 3½ pounds. Those are WFA figures. Others put the civilian average at 4 pounds per day. We'll take WFA's reduction of two pounds per day.

If the civilian population is consuming three-fourths of present farm production, its consumption is 103½ per cent of the prewar total. Whether that will change depends on the effect of removing ration restrictions, changed consumer buying power, increased population and other factors which cannot be reduced to percentages. Allowing that one-fifteenth of the soldier's share is lost in shipwrecks or handling, as a civilian he'll still dispose of 12 per cent of prewar eating. BAE also expects production to drop automatically from 138 to 126, when the war ends. A table makes it clearer:

Present production on 1935-9 basis	138
Anticipated postwar production	126
Civilian consumption	103.5
Returned military	12.17
Possible surplus, 1935-9 basis	10%
Possible surplus, 1944 basis	6%

That is the slide rule picture on WFA's figures. With the unknown factors, a six per cent margin is too small for future safety. The happy day when the boys come marching home is still in the future, demobilization will be gradual and no abrupt halt in demands for farm products need be anticipated from that cause.

We may eat the reserves

THE present stock piles, reserves for war emergencies, are the big contributing cause for fear of continued farm surpluses. The reserves are immense but the fears for their effect may be more psychological than real. Though large, they will be needed until the war ends. Before that time they may have melted away.

In a report to President Roosevelt on September 7, Mr. Byrnes stated that, with victory in Europe, military food procurement of 8,000,000 tons a year would be halved and American civilian reserves of 5,500,000 tons in England could be reduced to 3,500,000. Adding 2,000,000 tons of wheat, that makes 8,000,000 tons to get rid of, a lot of food, but only enough to feed 12,500,000 civilians for a year.

Mr. Byrnes added that Allied Military Government would take 1,200,000 tons of this food and United Nations Relief and Rehabilitation Administration 2,700,000 tons. Mr. Byrnes jumped the gun on the Army which had cherished AMG's needs as a military secret while, a week later at Montreal, Herbert H.



While surpluses of many foods are reported, the customer is puzzled to find shortages on the shelves of the retailer

the first eight months of 1944, than in the same months of 1943.

WFA had guaranteed a price to the egg producer for what he could not sell on the market. It bought billions of eggs, dried some, froze others and kept more in cases until they popped. About 7,000,000 cases were on its hands. Those

duction and produced reserves of farm products. They are separate problems. One is to get rid of the reserves when peace comes. The other is to gauge future production to balance consumption. WFA says the latter is the big problem, requiring long range planning. We'll look at its figures:

"HEART DISEASE...but I've never been sick in my life!"

Why should heart disease strike a man of health and vitality?

Well, the doctor explained, you know how age affects your face and hands and hair. Over the years, your heart grows older, too, so that it may be less able to meet the demands of strenuous living. Unless you learn to know and live within the capacities of your heart, you may



Sudden exertion is a thing to avoid.

risk serious coronary heart disease even in the very prime of life.

Just what is coronary heart disease?

Coronary heart disease simply means that the walls of the coronary arteries—that is, the arteries feeding the heart muscle—have hardened up a bit, become thicker, and have lost some of their elasticity. As a result, the heart muscle receives less blood and thus less food and oxygen. Naturally, if you then make excessive demands on your heart, you're inviting trouble.

Coronary heart disease is the most common form among men past forty. Even at younger ages you should watch for such possible warning symptoms as excessive fatigue, shortness of breath, chest pains, or oppression near the heart.

What can be done about it?

First, see your doctor and be guided by his advice. If the attack is severe, he



It's wise to get at least 8 hours sleep every night.

may prescribe a period of complete rest in bed.

The doctor will surely recommend the rules for living which everyone over forty



would be wise to follow as a PRECAUTION against heart disease.

For example, the doctor will advise moderation in all things. He will stress the importance of avoiding sudden exertion—of not trying to be a "week-end athlete"—the wisdom of getting plenty of sleep and avoiding overweight. Peri-



Walking, in moderation, offers pleasure without strain.

odic physical examinations will probably be recommended, including X-ray, laboratory, or other tests.

Must patients become invalids?

No—so long as they don't overdo. Diagnosed early, the damage to the heart may be negligible. Besides, it should not be cause for needless worry. Today, thousands of people who have heart disease,

and who take care of themselves, are living virtually normal lives.

Strict self-discipline, to gain freedom from all worry and strain, is of primary importance. Less competitive forms of physical recreation should be found. In other words, it is necessary to relax.

For valuable information concerning the hearts of young and old, send for Metropolitan's free booklet, "Protecting Your Heart."

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Lehman, Director General of UNRRA, said it could start with 4,500,000 tons, exclusive of milk, and 1,000,000 tons of sugar. A few days later, Mr. Lehman raised his request and London announced that England was giving up no food there. If any of the 8,000,000 tons survives until V-Day, it will not be surplus.

As our armies advance in Europe, reports are that liberated countries are not as near starvation as expected and that Allied countries, except the Soviet Union, have one-third more food than before the war. England already has signed agreements for food from Canada, Australia and New Zealand. While Europe may not need basic foods, its undernourished children, the sick and even adults lack fats, oils, sugar, meat and dairy products. Even Russia, which wants seeds and farm machinery, continues to get five per cent of our butter. Also, world prices are above those of the Combined Food Board and any surplus here may move rapidly.

Large supplies held here

IN addition to stock piles in other allied countries, WFA and its associated agency, Commodity Credit Corporation, have stocks in this country to satisfy both lend-lease and military demands and to support farm prices. WFA holds 2,000,000 tons of food, appraised at \$600,000,000, while CCC has \$868,000,000 worth with a correspondingly larger tonnage. WFA retires into secrecy when asked to itemize its holdings but CCC lists among its price-supporting items: \$165,000,000 worth of wheat and \$136,000,000 worth of sugar. (It also lists \$200,000,000 worth of cotton and \$118,000,000 worth of wool.)

The quantity and nature of the military stores are a secret. They are planned for V-Day. Too close an estimate might be converted into months to disclose the General Staff's date for that day. Mr. Byrnes says military food procurement is 8,000,000 tons a year and WFA sets it at 15 per cent of the nation's total farm production. Neither Army nor Navy ever is caught with empty warehouses. How the surplus will be disposed of when the military shrinks to peace strength also is a secret.

When discussion of surpluses gets down to specific farm commodities, there is wide disagreement between WFA and producers, farm organizations, processors, distributors, consumer groups and many others who have more than passing experience with the subject. In general, their only agreement is that surpluses in cotton, wool, dried peas and wheat may be a problem though some are sure the latter will be reduced by feeding and other demands. Others propose international agreements to fix quotas for each country, a world wheat cartel, passing on another headache to the treaty makers.

A fat volume would be needed to record the pros and cons for every commodity on this year's changing surplus



An emergency is the test of strength

It of course follows that the bigger the emergency, the more significant is the test... This is particularly true of the kind of emergencies which have confronted the Aetna during its first 125 years, and some of which are listed on this page.

While these catastrophes could not be anticipated, one thing we could and did do was to maintain adequate financial strength beyond legal requirements. That is why no policyholder has ever suffered loss because of failure of the Aetna to meet its obligations.

You frequently hear your local agent

or broker say that he is placing your insurance with "old line" companies. This phrase refers to the Aetna and other capital stock companies that have stood the test of time. In selecting such companies your local agent is looking after your interests through farseeing eyes.

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1846	1835—New York City	1819
Mexican War	1845—New York City	1837
1861	1851—San Francisco	1843
Civil War	1866—Portland, Me.	1857
1898	1871—Chicago	1873
Spanish-American War	1872—Boston	1893
1917	1877—St. John, N. B.	1907
World War I	1889—Seattle; Spokane	1921
1941	1901—Jacksonville, Fla.	1929
World War 2	1904—Baltimore	
	1906—San Francisco	
	1908—Chelsea	
	1914—Salem	
	1941—Fall River	



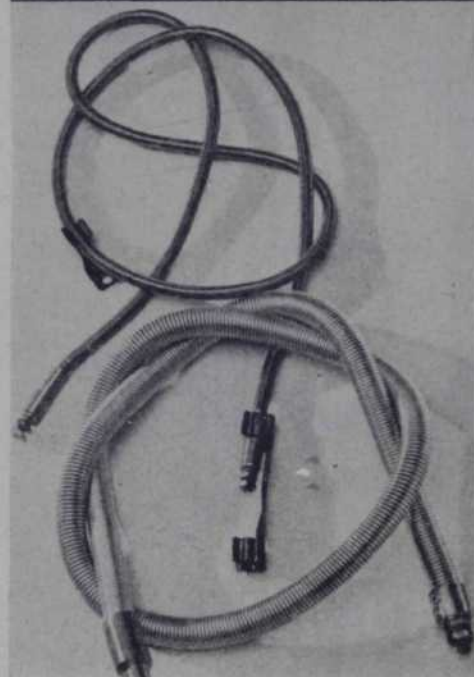
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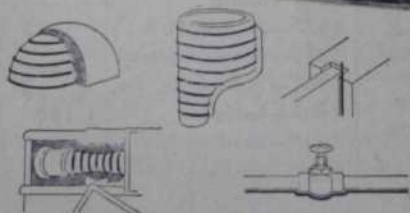
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or shortage lists. A few high spots are typical.

Invisible beef in the shops contrasts with reports of 82,000,000 cattle on ranges and farms, compared to previous highs of 73,000,000 in 1918, and 74,000,000 in 1934. At the same time, the census of cattle being fattened for market shows only 42 per cent of last year, 700,000 fewer.

How much of the cattle surplus is due to shrewd marketing and how much to government price fixing is anybody's guess. One explanation is that it is cheaper to keep cattle on the range than to gamble on the expense of feeding or to sell and get into higher income tax brackets. On the other hand, if price support is removed when peace comes, range herds must be sacrificed at a loss. Also, there may be a drouth and no surplus, as often before. Some dairymen complain that shortage of help and feed forces them to sell milk cows for slaughter and WFA produces figures to show that 59,000,000 tons of milk production is 16 per cent above record and that it has enough dried milk to make the muddy Missouri white. Explanations are just as conflicting and complicated for every other commodity.

Americans are carnivorous but, through a year, more pounds of vegetables are eaten than of meat. Of nine principal vegetables—asparagus, beans, beets, carrots, corn, peas, pumpkin, spinach and tomatoes—60 per cent en-

ters the kitchen doors in cans. This year's figures from the canning factories show that vegetables available for family tables will be less than any previous year. The total pack will be larger but the division between Government, which has first claim, and civilians will change. Comparative figures for previous years with estimates for 1944, are:

Cases	To Government	To Civilians
1937-41 average		117,900,000
1942	65,000,000	125,200,000
1943	54,700,000	116,700,000
1944	88,200,000	79,700,000

No surplus is suggested in canned fruits or fruit juices. The fruits covered by the figures are: Apples, applesauce, apricots, cranberries, berries, cherries, citrus, figs, fruit cocktails, olives, peaches, pears, pineapples and plums. Comparisons through the years are:

Cases	To Government	To Civilians
1937-41 average		46,300,000
1942-3	22,600,000	35,600,000
1943-4	21,100,000	24,900,000
1944-5	36,100,000	25,000,000

Public cold storage warehouses held 208,000,000 pounds of frozen fruits on August 1, 46,000,000 pounds more than normal; 906,000,000 pounds of meat, 345,000,000 pounds of lard and 222,000,000 pounds of cheese. In eight months of this year, civilians used 462,000 tons more sugar than last year and an addi-



One Man Can Make Hay Now

An automatic pickup hay baler which one man—on the towing tractor—can operate has been developed by the International Harvester Company.

Designed primarily for windrow pickup baling, the baler is also effective for tack baling. The width of the pickup is 54 inches. Self-feeding is accomplished by open-end floating auger and packer fingers which the maker considered an improvement over belt or chain cross conveyors since the new arrangement makes a more positive feed and helps to

eliminate the loss of leaves. Automatic bale separation is done by needles which obviate the use of blocks. Two knotters are designed for use with twine.

An adjustment is provided for the packer fingers to regulate the placing of material in the bale chamber so as to make a symmetrical bale regardless of the material being baled. Neat, firm bales weighing from 40 to 65 pounds can be turned out at three to five bales a minute or up to six tons an hour. Bale lengths may be 27, 36, or 42 inches.

BIG WIND

Shucks, Son, you hain't never seen wind till you been in a norther. Take the time me and Slim Bartel was drivin' down from Amarillo to San Antone in my li'l ole jalopy.

Warn't no gas rationin' then, but we run out anyways. Right spang in the middle of the prairie, 'thout a shack in sight.

Looked kinda bad to us. But all of a sudden it begun to blow. Come a-tearin' straight from the North Pole.

Wa-all, Slim and me jes' opened the car doors and that there wind pushed us clean to Big Spring. Had the brake on, but goldarn if we didn't git a ticket fer speedin'.

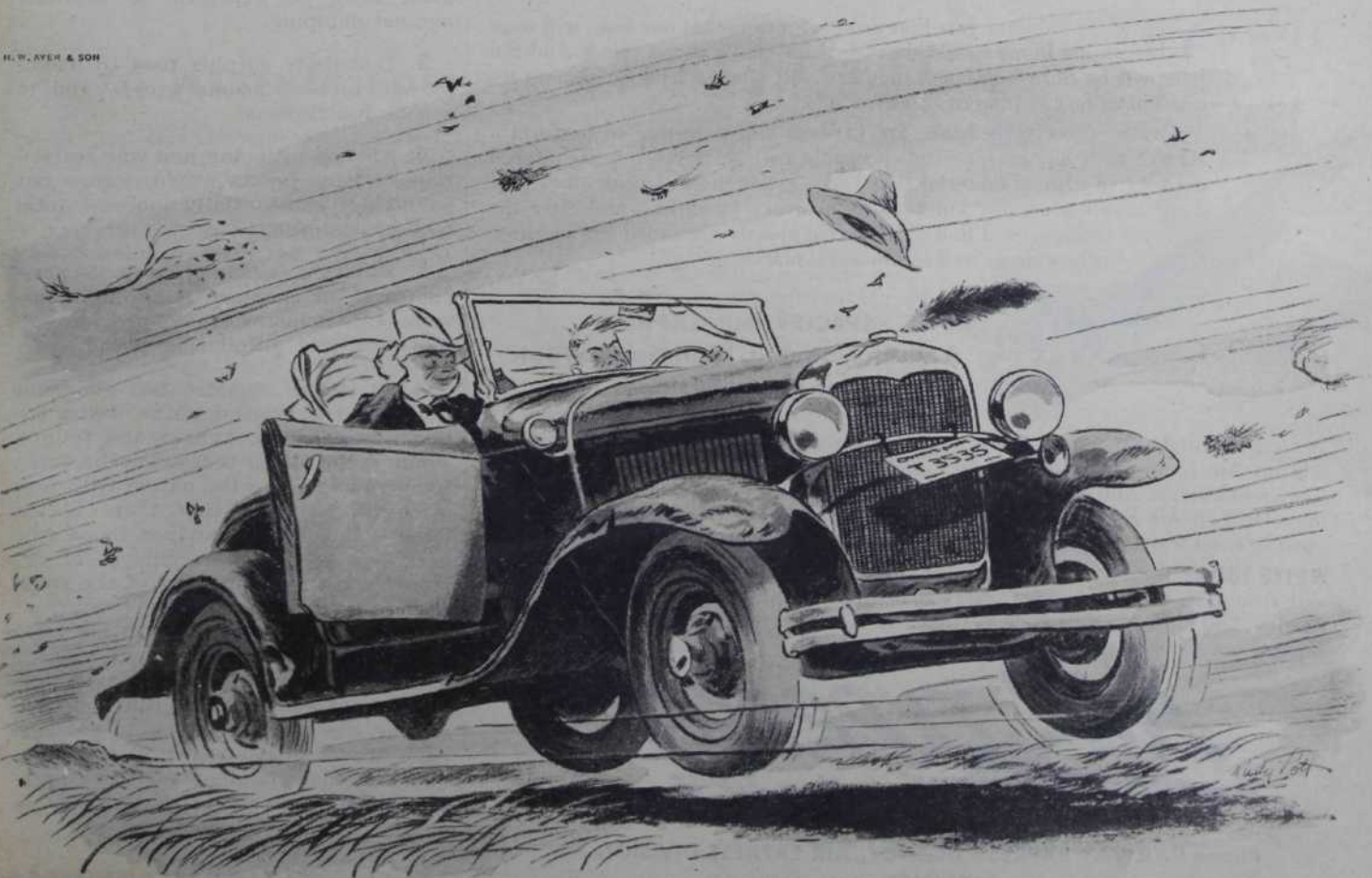
. . .

When the boys in the barracks, the back room, or the outer office "shoot the breeze" it's just good sport, and facts are the only casualty. But the wind blows in a different direction when business decisions are to be made!

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tional 700,000 tons went into industrial alcohol. As these are labeled shortages, a threatened surplus need not be viewed with alarm unless the United States expects to stand still.

In his report to the President, Mr. Byrnes longed for the day when Marvin Jones, War Food Administrator, would announce the farm production goals for 1945.

No platform platitudes for Judge Jones. He must set a goal for each crop from an annual 3,000,000,000 bushels of corn to a few hundred pounds of hops and a million tons of peanuts.

There are many "ifs." Next year always is a good, normal or bad growing year—but which? Nature turns the rain or sunshine on and off at its own pleasure. If machinery needs repair or labor is scarce, crops should decrease but they haven't.

Nobody knows all the answers so the Government guarantees prices to the farmer and livestock raiser for their products. Mr. Byrnes believes \$2,000,000,000 will be needed next year. It is also proposed to add another \$1,000,000,000 for soil conservation and acreage adjustment. In 1942, the Government contributed \$697,000,000, or 4.3 per cent of total farm income.

Meanwhile, various plans are proposed to hold a balance between farm production and consumption:

1. A slowdown technique which would reduce production by marketing quotas and limiting acreage.
2. Subsidize exports, particularly of cotton, to undersell competitors on world markets. Foreign countries, however, may be expected to retaliate against dumping.
3. Distribute surplus food to unemployed, to low income groups and to school lunchrooms.
4. Abolish rationing and war restrictions. Eating habits would change but would not substantially increase total food consumption.
5. Maintain consumption at its present level, or increase it through business and industry which provide employment and purchasing power.

A campaign against too abundant food is a dangerous doctrine. Better too much to eat than hunger and failure. What is not eaten today may be eaten tomorrow, girding the nation with new strength. Laments that there is too much food do not convince those who each day see the bare shelves of the stores and the empty bins of the stock feeders.

Thanks to the farmer with his worn machinery, working long hours, his sons and help in the cities or overseas, America has not gone hungry. But none will say he has had too much to eat and none knows what another year will demand. If there is abundance, consumption must, and can, rise through industry and employment.



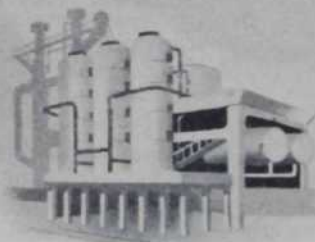
TO WEATHER POSTWAR *UNCERTAINTY*

Naturally you want to establish yourself quickly and permanently in the postwar era. To help you, Blaw-Knox offers engineering and products of wide range. It also has the facilities and personnel to manufacture for you, all or parts of your products.

One of the most important activities at Blaw-Knox is the Process Equipment Department, which among other things, specializes in the design and manufacture of equipment for the carrying out of chemical reactions by both the batch and continuous processes. This depart-

ment is fully qualified to render a complete service from building pilot plants to equipment for full scale production.

Blaw-Knox leadership in the origination and fabrication of products for so many fields of industry is a ground for confidence that it can be of help to you if your business comes within the scope of its activities. Many Blaw-Knox products now of international reputation were originated to fill the needs of one manufacturer. Perhaps the Blaw-Knox umbrella of industrial coverage can include worthwhile services to you. May we talk it over?



A chemical plant designed, fabricated and erected by Blaw-Knox for large midwest manufacturer.

BLAW-KNOX COMPANY

A PACEMAKER FOR
AMERICAN INITIATIVE
AND INGENUITY

LEWIS FOUNDRY & MACHINE DIVISION,
Rolls and Rolling Mill Machinery

NATIONAL ALLOY STEEL DIVISION,
Heat and Corrosion-Resistant Alloy Castings

SPECIAL ORDNANCE DIVISION,
Bofors Anti-Aircraft Gun Mounts and Mechanisms

PITTSBURGH ROLLS DIVISION,
Rolls for Steel and Non-Ferrous Rolling Mills

POWER PIPING DIVISION, Prefabricated Piping Systems

BLAW-KNOX DIVISION, Chemical & Process Plants & Equipment, Construction Equipment, Steel Plant Equipment, Radio & Transmission Towers . . . General Industrial Products

COLUMBUS DIVISION, Ordnance Matériel

2052 FARMERS BANK BLDG.,
PITTSBURGH, PA.

Buy More War Bonds and Stamps

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Steel and Alloy Castings

MARTINS FERRY DIVISION,
Bofors Anti-Aircraft Gun Mounts

BLAW-KNOX SPRINKLER DIVISION,
Automatic Sprinklers and Deluge Systems

Five Blaw-Knox Plants have been awarded the Army-Navy "E" for war-production excellence

A FEW VICTORY PRODUCTS

ANTI-AIRCRAFT GUN MOUNTS

GUN SLIDES

LANDING BARGES

AERIAL BOMBS

POWDER PLANTS

PIPING FOR NAVAL VESSELS

SYNTHETIC RUBBER PLANTS

CAST ARMOR FOR TANKS & NAVAL CONSTRUCTION

CHEMICAL PLANTS

The Coming



Square milk bottles, now in production, require only about half as much space as round bottles

NOT only will materials be competing to see which does the packaging job, but the packages themselves will be competing to win the customer's favor

PACKAGES help make sales. In today's seller's market, their artful aid is not particularly needed. Tomorrow, however, the story will be different—and so will the packages.

When military requirements are curtailed and the country faces the necessity of keeping its expanded facilities busy, we will enter an era of intense competitive merchandising in which new and better packages will play a most important part.

We have learned more in a few months about how to pack for every purpose, every climate, every type of transport than ordinarily we would have learned in a generation.

Emphasis has been on getting the goods delivered in proper condition. Expense has been secondary. Packaging methods hitherto regarded as too costly for commercial use have been explored and perfected.

At the same time, shortages of critical materials have forced civilian goods manufacturers to devise ingenious new packages and to utilize alternative materials which otherwise they might not have considered. Packers have "switched for the duration" from metal containers to glass, from foil to paper, from cellophane to paper, and so on.

After victory, what will happen? Will paints, oils and varnishes still be sold in glass? Will coffee go back to vacuum cans? Will chewing gum, tea, chocolate

bars and cigarettes find glassine as good a wrapper as metal foil?

Some of the wartime innovations will become permanent. Products will gravitate to the type of package most suitable for their specific needs—costs and other factors considered.

But packaging and container materials which have lost markets as a result of the war will fight to regain them, and those which have won new markets will fight to retain them. New materials will be in the battle, too.

One tough competitive engagement will be between cans and glass.

Before the war, America opened, emptied and discarded more than 45,000,000 cans a day—about 17,000,000,000 a year—according to the Can Manufacturers Institute. Use of cans was increasing.

"The consumption of canned vegetables increased 55 per cent from 1925 to '40," reports F. J. O'Brien, president of the Institute, "and the consumption of canned fruits and juices increased 86 per cent."

Cans were invading the beverage market. "From 1937 to '41," says Mr. O'Brien, "the sale of packaged beer increased about 31.7 per cent, but the sale of canned beer increased 125 per cent."

Before Pearl Harbor, our annual consumption of tin for all purposes was about 130,000 tons. This has been cut to about 75,000 tons.

Glass has been pinch-hitting for metal containers on the home front. Since 1938, the annual production of glass containers has gone up from about 6,250,000,000 units to 14,400,000,000, reports the Glass Container Association.

Seventy-two per cent more glass containers were manufactured in 1943 than in '40. But the capacity of the average

container was increased, so that 135 per cent more volume of product was packed in glass in '43 than in '40.

The glass container industry expects to hold on to its increased business, especially in the food field.

"For packaging foods, glass has certain advantages," the industry explains. "It offers variety in shape and design, and is transparent."

"Transparency is all-important in merchandising processed foods," says the Glass Container Association, "particularly quality foods. Tests show that fruits and vegetables packed in glass outsell the same products in opaque containers, even though the price of the glass-packed goods is slightly higher."

Obstacles being removed

OBSTACLES have, in the past, held up the use of glass in the food field. Cost of packing in glass has been greater than in tin. Glass has been harder to handle, subject to breakage. Packers have had difficulty getting a good closure for glass containers, thus risking spoilage.

The glass industry has been working on these problems, feels that it has them licked. Today, the price differential between glass and tin is not as great as it used to be—and may be still further reduced by increased production and by improvements in packing methods.

(Continued on page 56)



ALUMINUM COMPANY OF AMERICA

Aluminum will be used not only for collapsible tubes, such as these, but also for sturdy cans

Battle of the PACKAGES

By ART BROWN

Trends that Will Change the Container

1. Wider variety of goods will be packaged:

A LARGE chain-store organization and a mail order company plan to package, within reason, every item on sale in their retail outlets. Nails, screws, gadgets, tools, accessories, foods will be wrapped, boxed, bottled, bagged, canned, fastened to cards, labeled. An indication of the trend.

In certain grocery stores and markets, tests are being made to find the best way to sell packaged meats, fruits and vegetables. Sports wear, play clothes, work clothes, even fashion lines will be packaged postwar.

Products such as building materials, now in forms which do not permit economical packaging, will be offered in new forms which do permit practical packaging—to show them off to advantage, to make them easier to handle.

2. More self-service is coming:

LABOR costs and other costs of doing business will be higher postwar. Self-service is one way for the retailer to keep expenses down.

Already this method, dominant in the food and grocery field, has been tried successfully in hardware and department stores. It promises to invade practically every field of retailing. The American people like it.

Self-service has a tremendous bearing on containers. In self-service the customer and the goods are brought together. Yet the product must get maximum display, compel attention, be easy to recognize at a distance.

3. Stores will be modernized:

EVEN in retail stores which do not lend themselves to self-service, the trend is toward layout which brings merchandise closer to consumer.

Postwar stores will be brighter, will make wider use of glass and mirrors for partitions, shelves and display stands. Packages and containers must be more beautiful to fit in with such glamorous surroundings, and must also be readily identifiable under various kinds of lighting.

4. More frozen foods are in sight:

FROSTED food processors plan to offer 200 varieties of frozen foods postwar compared with 75 today, expect annual sales to reach 3,500,000,000

pounds within five years after victory—an increase of 400 per cent over present peak.

Processors estimate that, within five years after the war, frosted foods will be sold in 100,000 stores, one out of every four retail food outlets in America. Prices will be low enough to compete with quality canned and fresh foods. Present differential is about 20 per cent.

Complete pre-cooked meals will be available. Frozen foods will be delivered from door-to-door by refrigerator trucks, and will be dispensed automat-style by at least one chain of "Frozen Food Centers."

5. More "ensemble selling" is on the way:

MERCHANDISERS have found that people like to buy "kindred products in one package." By combining goods, which logically belong together, in a suitable package, it is possible to create two or more potential sales where only one existed before.

A shirt, for example, can be made to sell a tie and handkerchief to match; shaving cream can be made to sell lotion and powder to a man who perhaps would not buy powder by itself.

6. Kitchens will be different:

TOMORROW'S kitchen will be multipurpose—a combination kitchen, dining room and laundry—and will be equipped with time-saving and labor-saving devices.

Because more packaged goods find their way into the kitchen than into any other room in the house, there is a direct connection between the kitchen and containers.

The housewife will prefer packages which fit into her kitchen, contribute their share to time-saving by being easy to open the first time (yet tamper-proof), have practical dispensing features, take up little space, and look well on her shelves. She will perhaps be attracted by packages which are suitable for service on the table, and can be reused about the house when empty.

7. Other factors:

A WIDER selection of articles will be dispensed by vending machines. Air transport will expand markets for perishable goods. Television will make it possible for manufacturers to demonstrate their products on home-receiving screens.



THE THREADS on which the destiny of a free nation depends are now creating the machines of war which will bring America new greatness.

These strong steel threads which are helping make tanks, planes, P.T. Boats in enemy-crushing volumes will soon be devoted to Peace. Autogiro taxicabs, message-taking telephones, television, to mention a few possible developments, will raise our living standards to undreamed-of heights.

This is the postwar era for which all America fights and works . . . an era of traditional Freedom of Enterprise, Freedom of Initiative, and Freedom of Competition . . . a new epoch of happiness and security that approaches the Utopian.

Today the Detroit Tap & Tool Company is busy producing such Threads of Destiny. This is why the threads of Ground Taps, Hobs, Gages and Special Threading Tools we produce, must be strong threads of amazing accuracy and unqualified workmanship. It is a trust which the Detroit Tap & Tool Company accepts—a promise for the future which is best answered by our accomplishments of the past.

Send for your free copy of "Threads of Destiny," a new booklet tracing the development of the machine screw thread. Please make your request on your company letterhead.

DETROIT
TAP & TOOL CO.

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LET'S ALL KEEP BACKING THE ATTACK—Buy More Bonds

GROUND TAPS • GROUND THREAD HOBBS • THREAD GAGES • SPECIAL THREADING TOOLS AND GAGES

In cooperation with WPB, the industry has standardized glass containers for staple products, which tends to keep production costs down and makes for more economical packing. The industry has found a way to blow two containers mechanically where only one was blown before. This does not double production because the machines cannot be operated as fast, but it does lower costs.

Glass is more uniform, stronger and more dependable than formerly. Glass containers are better "engineered," more scientifically designed, are lighter, tougher, less likely to break. Closures have been improved.

The glass industry is counting on the fact that many packers, forced to accept glass as a wartime necessity, have learned how to handle it, have lost their former prejudices against it.

The glass industry also has its eye on the beverage field and will reintroduce and promote its throw-away bottle which before the war proved cheap enough to compete with the can.

The can industry is equally confident of its future.

"For many years, steel-and-tin containers have held an important place in the American scheme of things," says the Can Manufacturers Institute, "a place which we fully believe will become increasingly important."

"Cans are here to stay," the Institute holds, "because they are easy to carry, easy to open, to heat, to ice—and easy to dispose of."

Tests conducted by the Continental



CELANESE CELLULOSE CORP.

Moisture-proof plastic boxes make ideal containers for repair parts

Can Company in cooperation with the Army show that: "Dehydrated vegetables and fruits retain their original flavor, vitamin content and form best when packed in metal containers and hermetically sealed in inert atmosphere—nitrogen or carbon dioxide."

Dehydrated foods will offer a big field for cans after the war, the industry believes, when dehydration processes will be vastly improved and more and better dehydrated foods available.

The can industry has worked out a new electrolytic process of coating steel with tin which saves up to two-thirds the tin that was used in the old hot-dip



Thinking Americans Today... ARE NOT TOO FREE WITH FREE SPEECH

Since our republic was founded, no privilege has been guarded more jealously than the right to talk things over—a right for which men had fought in vain for centuries. The more viewpoints discussed, the clearer our national vision and the stronger our national unity.

Today, public opinion in America asks us all to protect our privilege. It warns us

against spreading rumors thoughtlessly or circulating information helpful to the enemy. It urges us to challenge the person with "inside information on the war" by asking him, "Where did you get your facts?" It reminds us that the enemy lays important plans by piecing together little scraps of offhand information. *There is no such thing as unimportant gossip.*

* * *

Anheuser-Busch produces materials which go into the manufacture of:
Rubber • Aluminum • Medicines • B Complex Vitamins • Hospital Diets
Baby Foods • Bread and other Bakery products • Vitamin-fortified
cattle feeds • Batteries • Paper • Soap and Textiles—to name a few.



When a product maintains the character that people respect, they are quick to demand it. Generations ago, the makers of Budweiser set a standard—distinctive in taste, pure, good and distinguished for its uniform quality. That's why people everywhere have agreed that Budweiser is "something more than beer". No wonder it is the most popular beer in history.

Budweiser

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TRADE MARK REG. U. S. PAT. OFF.

A N H E U S E R - B U S C H . . . S A I N T L O U I S

"Finish 'em by 5 o'clock?"

That's easy!"



No task is too great for the men and women who use Monroes. Everything about a Monroe speeds work and eases the operator's job . . . its simplicity, its "Velvet Touch" and fast performance, its compact convenient size; and the figuring short cuts that become second nature to a Monroe operator.

Business depends on Monroe in all phases of figuring and

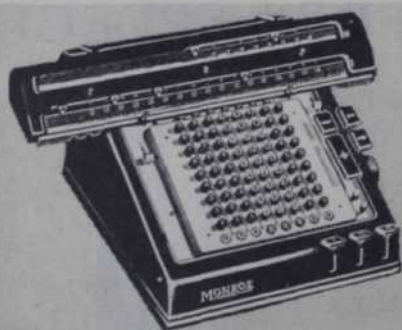
accounting; payroll calculations and records, statistics, analyses, estimates, reports, invoices, costs and statistics, inventory and accounting procedures. In thousands of offices, factories, banks, and stores Monroe Calculating Machines and Monroe Listing and Accounting Machines help keep this vital work up to the minute.

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Without obligation send for the Monroe Payroll Book showing simplified methods for figuring Overtime, Bonus and Tax Withholdings. A most valuable presentation of time-saving shortcuts on all payroll calculations. Get in touch with nearest Monroe Branch, or write Monroe Calculating Machine Company, Inc., Orange, New Jersey.

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ACCOUNTING MACHINES



Monroe MA 7-W Calculator



Monroe 209-485-191 Accounting Machine

method. Also, in lieu of tin, the industry has developed a fine-grain, synthetic lacquer which, sprayed on the steel plate, withstands drawing, bending and rolling and has proved suitable for cans for less corrosive products.

Other recent developments include: new alloys, speedier soldering techniques, new sealing compounds, new ways to prevent corrosion.

Not only will cans and glass be competing with each other but also with plastics, paper, aluminum, tin, wood, and with combinations of these materials. It will be a battle royal.

Plastics are versatile

BEFORE the war, plastics were widely applied in packaging. "See-through containers" were in vogue, both in flexible and rigid form. Plastics were also used in combination with other materials, and for caps and closures, including milk bottle caps.

Plastics have gone to war. Merchandisers have largely been denied their use for civilian goods but after victory plastics will be back stronger than ever, the Plastics Materials Manufacturers Association predicts.

In addition to being transparent and lustrous, plastics combine toughness with lightness, can be had in color, can be printed, can be heat-sealed without adhesives. Many plastics are resistant to moisture, impervious to dirt. Some are resistant to chemicals.

War has accelerated the development of plastics and has expanded their application. New developments include stronger plastic films; a cellophane so thin it takes 1,000 sheets to make an inch-high pile; a protective coating which can be applied to a metal part to prevent corrosion and merely stripped off when the part is needed; new techniques for blowing thermoplastics like glass.

A bag of extra tough laminated plastic film inside a paper carton, now used to replace metal packaging, can be used for packing frozen foods. Sheets of cellophane waxed together make a moisture-resistant material suitable for bags and wrappers. Flexible plastics, it is predicted, will be used for vacuum pack.

Paper is now being used to pack more than 700,000 different items being sent to our armed forces. Some of these packages can be submerged in water without damage to the contents.

Paper can be made resistant to heat, proof against rodents, insects, gas and grease. By adding certain resins to the pulp, any type of paper from tissue to cardboard can be made extra strong. By the use of waterproof adhesives paper can be combined with other materials.

Paper boasts that it can team up with plastic films and metallic foils in countless combinations to give almost any characteristics required in packaging materials.

Aluminum will be abundant after the war—and will have many uses for containers, collapsible tubes and foils. Aluminum is resistant to moisture, heat,

"Not a day lost in years . . .

"Not a day, George, that bad weather has even slowed us down. No blizzards, no floods, no extremes of temperature to lower production and sap morale.

"We figure that Metropolitan Oakland Area's mild yet stimulating climate ups our production per man hour 15 per cent over our eastern plant.

"Many of our workers live within walking distance of the plant. Use of electricity and natural gas instead of coal for fuel keeps the air fresh and clean, so neat little homes with lots of flowers and Victory Gardens are handy to industrial sections.

"I'm going to read this letter of Pete Stannard's at the Board meeting tomorrow."



Many thousands of our residents enjoy from their windows and patios views like this . . . and rolling hills and quiet valleys and sunny farmlands. No other community offers such a rare combination of scenic residential and industrial advantages.

150 nationally-known manufacturers have plants here. This huge war industries center also manufactures many diversified lines. Mild yet invigorating climate. Most favorable living conditions. Many workers live only a few minutes walk from their jobs.



"Up in the hills, only 20 minutes or so from work, are other modest homes with magnificent views of the great Bay and wooded hills and lovely canyons.

"Living's more fun out here, George. What eastern industrial center can stage a top-flight golf meet in January? Then there's year 'round hiking and riding over hundreds of miles of trails, there's fishing and yachting, swimming and tennis, and mile after mile of huge natural parks.

"My boy's a senior at U. C., the largest university in the country, almost within walking distance, and my daughter is a freshman at Mills, finest woman's college west of the Mississippi. High schools and grammar schools are of the best, too."



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OAKLAND AREA**
CALIFORNIA

FREE BOOKLETS . . .



Metropolitan Oakland Area is at the heart of the amazing industrial New West, most favorably located for manufacturing and low-cost distribution to the 11 Western States. Write us your requirements and we will compile a *Confidential Special Survey* directly applied to your problems. "You'll Find It Here!", in full color, previews the scenic and residential attractions of Metropolitan Oakland Area. "Facts and Figures" tells of its amazing growth and industrial importance and gives data and statistics. Write for these free booklets today.

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METROPOLITAN OAKLAND AREA
389 Chamber of Commerce Building Oakland 12, California

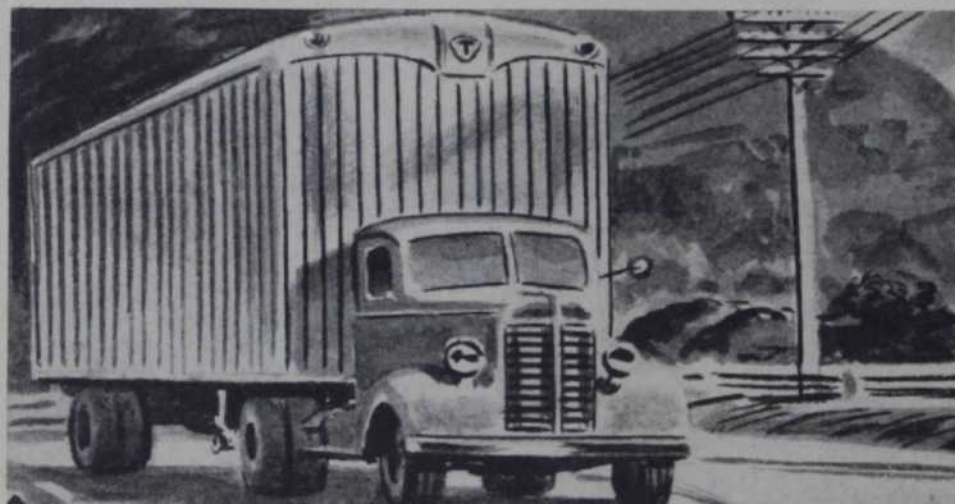
*Mainland Gateway to the
Postwar Markets of the Orient*

The NATURAL Industrial Center of the NEW West

ALAMEDA • ALBANY • BERKELEY • EMERYVILLE • RAYWARD • LIVERMORE • OAKLAND • PIEDMONT • PLEASANTON • SAN LEANDRO • RURAL COMMUNITIES OF ALAMEDA COUNTY



1. "Over there" thousands of military trailers are on the job — anywhere from Africa to Europe, Asia, the Pacific Islands and Alaska. They highball whole armies and thousands of tons of munitions and equipment over hundreds of roads to Victory. Trailmobile produces many types of war trailers.



2. "Over here"—linking our biggest cities to any points on the road maps — trailers are the *flexible* way to deliver materials *fast, economically*. Trailmobile is now manufacturing new commercial trailers for our overburdened home Highway Transport — see below.

The "GET THERE!" It Takes

THIS WAR is unique for *speed!* Time after time on the battlefronts, speed in moving up men, munitions and equipment *means the difference* between victory and defeat.

Our armies have the "Get there!" it takes. Railroads may be sabotaged in invasion territory. But our troops are the world's best-equipped with trucks and trailers. They "eat up distance" across

shell-pitted terrain! Over jungles! Deserts! Mountains!

Tough as our mobile equipment is, the rate of destruction, the rate of replacements required is terrific. The trailer industry must supply military trailers and replacements *first*. Highway Transport at home has suffered — with too few trailers, men, tires and spare parts. Yet it has worked miracles in speeding wartime deliveries of goods.

New Commercial Trailmobiles — At Last!

► America's all-out trailer production at last is catching up with war needs. We are building our full allotment of several thousand new

commercial Trailmobiles, permitted under Government allocations, with no let-up in supplying military equipment.

THE TRAILMOBILE COMPANY, CINCINNATI 9, OHIO—BERKELEY, 2, CALIF.

TRAILMOBILE



Commercial Trailmobiles for War and Peace The Vital Link in Flexible Transportation

light and chemical action. Because aluminum is non-toxic, the aluminum industry believes it will be widely used for packaging foods.

Plastic-coated aluminum foil, now used by the Army for powdered coffee and dehydrated fruit juices, may have a place in the frozen food industry.

"Aluminum foil will be used after the war for wrapping bread, cakes, crackers and citrus fruits," predicts the Reynolds Metal Co.

Recent experiments, the company reports, indicate that bread wrapped in aluminum foil can be kept fresh for 60 days, and citrus fruits for six months.

The company estimates that aluminum foil for wrapping bread and other bakery products might account for as much as 100,000,000 pounds of aluminum a year; and for wrapping citrus fruits, an additional 50,000,000 pounds.

New techniques for heat-sealing aluminum foil make possible a completely airtight, moisture-proof liner for a paper box—actually a "can" within a carton. On an experimental basis, sardines and tuna have been packed com-

(Continued on page 62)



AIR TECHNICAL SERVICE COMMAND

Now the Sky Hook

The sky hook now comes out of the world of fantasy into reality. A device by this name is now being made for delivery of emergency supplies by airplane. It is a bulbous container with a wing approximately three feet long similar in shape to a maple leaf.

Released from a plane the sky hook spirals to the earth in a flat spin at an approximate speed of 35 feet a second, or slightly faster than a parachute.

Parachutes, when released from a safe height, may drift considerably due to the wind. Drift of the new container is negligible and accuracy therefore greater.

In postwar days it may be used for delivery of mail or small packages.

The store with *Eye-appeal*



BEFORE

is the store
that people prefer!



AFTER

**Be ready to reap new profits by planning your
new store front and interior NOW.**

WANT a proven recipe for better business and bigger profits? It's a simple one . . . in two parts.

First, give your store *interior* smartness and beauty with Pittsburgh Glass. Second, remodel your store *front* with Pittsburgh Glass and Pittco Store Front Metal. Then your store will have the eye-appeal and personality that attracts new

customers, widens your trading area, boosts volume.

Now is the time to plan your store modernization. Be ready to go when building restrictions are lifted. Remember that a big backlog of modernization work has been built up during the restricted period . . . and it will probably be difficult to get alterations done promptly if you

BE SURE YOUR STORE has the eye-appeal that means better business. Plan to modernize it . . . inside and out . . . with Pittsburgh Glass. This attractive store in Omaha, Neb., shows how Pittsburgh Glass can improve a store's sales personality. Architect: George B. Prinz.

wait till the last minute.

See your architect to assure a well-planned, economical store design. Our staff will gladly cooperate with him. And meanwhile, you'll want copies of our free books about store modernization. They show many actual Pittsburgh remodeling jobs . . . with facts, photographs, and ideas. Send the coupon below . . . today.

"PITTSBURGH" stands for Quality Glass and Paint

PITTSBURGH GLASS

for Store Fronts and Interiors

PITTSBURGH PLATE GLASS COMPANY

Pittsburgh Plate Glass Company
2349-4 Grant Building, Pittsburgh 19, Pa.
Please send me, without obligation, your
illustrated booklets on store modernization.

Name

Address

City State



Emperor

the pipe that
grows more priceless

Choice
Imported
Briar



Today after two and one half years of war, there still exists a rare vintage collection of imported briar from which to carve a limited number of Emperors.

Nature took centuries to perfect these treasured burls. Skilled craftsmen who sculpture each Emperor know this—striving to reveal all the unique beauty with which Nature endowed the costly briar.

For symmetry, for rugged strength, for beauty of grain, here is true perfection.

Shop for yours leisurely. Purchase it proudly. It will grow even more priceless down through the years.

\$3.50 \$5.00 \$7.50

EMPEROR PIPES

Empire Briar Pipe Co., Inc.
Eighty York Street, Brooklyn 1, N. Y.

mercially in aluminum cans. Lower costs of sheet aluminum may expand this use postwar.

An extruded aluminum container—with sturdy walls top and bottom and which can be hermetically sealed—will make a real bid for business in the food and pharmaceutical fields.

Battles within battles

WITHIN this coming battle royal to determine which materials will package which products, there will be a series of other battles—the products themselves fighting to win the customer's favor.

Put packaged products of equal quality on the same shelf, say merchandisers, let the customer have her choice, and she will veer toward the most attractive.

Supermarket operators have found that it is not uncommon for a well packaged "unknown" to outsell a poorly packaged advertised brand. This does not mean that repeat sales will occur if quality is lacking but it is significant of the importance of proper packaging.

New trends in packaging will influence tomorrow's merchandising and new trends in merchandising and in general will, in turn, influence tomorrow's packages. (See page 55.)

There may have been a time, after we emerged from the cracker barrel stage, when a manufacturer desiring a new package could call in an artist, have him prepare a few sketches, and then pick out the one which he, "the boss," liked best. That day has long since passed—for national brands, at least.

The merchandiser has learned that the customer is the boss. Today's packages more often than not are pre-tested.

Recently, for example, when a cosmetic manufacturer wanted a new package, more than 50 sketches were made.

These were submitted to a list of 1,000 potential customers—and all but six of the designs eliminated. The remaining six were then made up into actual dummy packages and shown to several thousand women for a final choice. The surviving package turned out to be a sales winner.

Tomorrow's package, say designers, will not be fantastic or revolutionary. Its basic function will be the same as it is today, but in most cases the package will be more scientifically conceived.

Package designers will know what protective qualities must be provided, and what new materials are available. Through market research, they will analyze the sales elements of their present packages and of their competitors' packages.

The designers will determine what the customer wants to know about the product and its uses—and see that the information appears on the package. They will find out how the package is to be filled in the factory, how it will be stored in warehouses, arranged in stock rooms, displayed on shelves, counters and in windows.

The package will be designed for style, constructed for maximum protection of the contents, for economy in use of materials—and for distributor, dealer and consumer convenience.

Aim of every manufacturer, every packer, every merchandiser will be to build into his package powerful sales appeal, to make it stand out, win confidence.

The coming battle of the packages will extend to every corner of the land, will make employment for hundreds of thousands—perhaps millions—of workers. Out of it will come constantly improved products at lower prices which will help lift our American standard of living still higher.



Jean Allen of the Can Institute telecasts a program showing actual packages—something which may be commonplace tomorrow

OPTICAL SCIENCE reaches new heights at **Kodak**

... makes possible
the finest camera lenses
of all time

The first of Kodak's "postwar" lens formulas are incorporated in such lenses as Kodak Medalist's f/3.5, the Recordak microfilm lenses, and Kodak's f/2.5 aerial lens for night reconnaissance.

Experimental aerial lenses of other speeds, designed and made by Kodak, each requiring years of computation, are now with the Air Forces.

ONE great factor in these new lenses is the revolutionary "rare element" glass developed by Kodak. In the past the lens designer begged for new types of glass for the development of his ideas. Now he has resources in glass which outstrip his creative imagination.

His position is similar to that of the physician who suddenly is given a new curative agent such as penicillin. It takes years to explore and realize its full usefulness.

At Kodak, "optics" includes every step in lens making, from a design originated for a special purpose by Kodak scientists to the tested and approved lens finally mounted in the camera.

This applies from the lens of the lowest priced Brownie or Kodak to the rare-element "postwar" lens of the costliest Kodak.

This program of lens development is now being extended—for the better pictures you'll make in the future.

EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK

REMEMBER THE MARINE CAPTAIN who led his platoon onto the beach in the first assault wave at Tarawa? . . . how, after all his men were killed, he wiped out a Jap machine-gun position before he was fatally wounded? . . . how, in his last letter home, he had written "The marines have a way of making you afraid—not of dying, but of not doing your job"? A stern example to us at home.

BUY MORE WAR BONDS.

POURING A "MELT" of optical glass in the world's first all-electric glass plant at the Kodak lens works. The heavy platinum lining of a melting pot costs \$4,800—only platinum keeps impurities down to the maximum allowed by Kodak, 1 part in 1 million . . . The glass itself is made of "rare elements"—tantalum, tungsten, and lanthanum. Kodak's use of these, instead of sand, to produce optical glass with a much higher refractive index (light-bending ability), without marked increase in dispersion, is the "first basic discovery in optical glass in 55 years."

$\frac{1}{2}$ "LIGHT WAVE"—after all surfaces of the several elements in a lens have been ground and polished to an accuracy of $\frac{1}{2}$ "light wave"— $\frac{1}{100,000}$ of an inch—the assembled lens is brought to a lens bench for study and adjustments. The microscope shows the image of a pinpoint of light about 200 feet away—it appears as a tiny star. The size, shape, and color of the star image are determining factors in judging the optical quality of the lens.



STARS BAD AND GOOD—At left a "bad" star, at right a "good" star, as seen in lens bench microscope. In a lens which passes muster, the star must be symmetrical in shape and color, not exceed a maximum size. Weird shapes and bright colors, as at left, mean rejection. Star images photographed at 11° off axis.

Serving human progress through photography



"My dollar says an Hour!"



The private picked thirty minutes—the sergeant forty-five.

Who'll win the pot? The one who comes the closest to the time their G. I. pal spends dickering before he makes his purchase.

And the time he spends is even more important than the money, for, as it says in the War Department's Pocket Guide to Syria:

"... bargaining when making a purchase is customary. It is part of the social life of the people. They do not trade just for the money... but to practice their skills and judgments. To bargain intelligently is to show understanding in values."

That's the custom of the country... one that's new to many boys who are stationed there.

There's a custom of our own country,

too, that's new to many boys in service. It's the American custom of *traveling in comfort*—which troops are doing at the rate of 30,000 every night.

Lots of them have never slept in Pullman beds before. So *going Pullman* is thrillingly new. And that's what it will be to you when the war is over.

Then, new Pullman cars will give you comfort and convenience beyond any you have known. One new-type car will be all rooms.

Your room—in one of these post-war Duplex-Roomette cars—will be like a

private room in a fine hotel, providing every facility for your comfort and convenience. But Pullman plans that a Duplex-Roomette will cost you little—if any—more than a lower berth costs now.

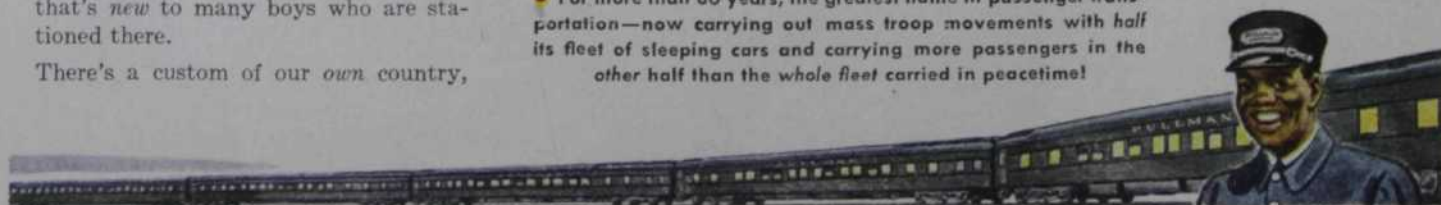
Another new-type car will provide Pullman comfort and convenience for less than the present rate for a berth in either standard or tourist sleeping cars.

When these two new-type cars go into service, *going Pullman* will be more than ever the custom of the country.

NOW'S THE TIME TO BUY ANOTHER WAR BOND!

PULLMAN

For more than 80 years, the greatest name in passenger transportation—now carrying out mass troop movements with half its fleet of sleeping cars and carrying more passengers in the other half than the whole fleet carried in peacetime!



Copyright 1944, The Pullman Company

When You Plan an Airfield

(Continued from page 34)

ing whether the railroad will go through your town, or, if it does, your town will be simply a whistle stop.

The private flying which may be done in your community must also be considered in determining the landing facilities required. Aviation leaders generally believe that private flying will grow rapidly after a few years, but that, in the early postwar period, it will develop slowly, because of a lack of flying equipment and ground facilities, and because of the costs of personal flying.

Planning for the traffic

IN EACH community, a survey of post-war private flying possibilities can be taken by asking the general public its views. This can be done by individual questioning, or through the local newspapers which should be glad to cooperate on such a community venture. Local automobile agency men, air school operators, or others who might be considering active participation in community air development, can be asked to express their views. Local business organizations with a number of traveling salesmen or staff members might indicate their plans concerning the use of private planes for business purposes.

It seems elementary to observe that, if a community knows how much air traffic it can expect and what form it will take, planning should be easier. Yet, inquiries received at Washington imply that these basic facts are unknown in many instances.

The matter of where to locate the local airplane landing facilities may seem easier to decide. But here, advice from experts is essential. In previous years, for one reason or another, airports were located haphazardly. Some were in sections where adjoining buildings, wires and other obstructions made every flight a hazard. Some took no cognizance of prevailing winds. Others were too far from town. Lack of planning or a basic knowledge of aviation was obvious.

In some communities, park space or unused river banks may be found ideal for small landing bases, having the convenience of location near the center of town. For larger facilities, it may be necessary to get out into the open country, but not too far away for easy access. These are the concern of professional planners.

The Civil Aeronautics Administration in Washington can give good advice along these lines, or information can probably be obtained from the state.

Bargain plots of land, even outright gifts, may prove disastrous in the long run. The right location is vital.

Also affecting location as well as many other considerations are local,

READY?

GET SET!



Request FREE BOOK on streamlined Packaging



Peacetime products will travel more economically and safely as a result of wartime packaging improvements. Bring yourself up to date now on modern packaging—so that when the war ends, your post-war products will be ready to GO with lighter, less expensive, better protection. Send for the KIMPAK* "post-war packaging book," just off the press.

Right now, KIMPAK is mighty busy conveying military material to our fighting forces. But the day is coming when KIMPAK will be available to lighten, speed, safeguard and beautify the products of peace. It'll pay you to learn more *now* about this amazingly

*KIMPAK (trade-mark) means Kimberly-Clark Wadding



resilient, compact cushion for products going places. It absorbs jars, cuts packaging time, reduces package size. Various types to protect anything—from pianos to jewelry. Get the whole story from this fascinating book. And for a post-war packaging *plan*, call, write or wire for the KIMPAK man.

Kimpak

REG. U.S. PAT. OFF. & FOREIGN COUNTRIES

CREPED WADDING



KIMBERLY-CLARK
CORPORATION
Creped Wadding Division NB-1144
Neenah, Wisconsin

Send copy of FREE KIMPAK BOOK on
post-war packaging methods to:

Name

Firm

Address

IT'S GOOD BUSINESS

A mind free from worry is free to succeed.

A man well-insured escapes anxiety as to his family's future if its bread-winner should be taken.

IT'S GOOD BUSINESS TO BE
ADEQUATELY INSURED



The **PRUDENTIAL**
INSURANCE COMPANY OF AMERICA
A mutual life insurance company
HOME OFFICE **NEWARK, NEW JERSEY**



PLAN NOW
for lower postwar costs

Typical of the versatility of our machines, is the FA model which wraps a great variety of products.

You've watched your costs mount since Pearl Harbor. You know, too, that something must be done about it, if you want to meet postwar competition on favorable terms.

Improved manufacturing equipment is one answer. And when it comes to packaging, we know from past experience that our wrapping machines can help you make important savings right from the start—and improve the sales appeal of your package, too. In many cases they pay for themselves in one year.

We'll be glad to study your methods and make recommendations for your present or postwar needs

PACKAGE MACHINERY COMPANY • Springfield 7, Mass.

NEW YORK

CHICAGO

CLEVELAND

LOS ANGELES

TORONTO

PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

state or federal laws and regulations governing air traffic and landing facilities. Regrettably, there is little standardization in municipal and state laws governing airports. It is necessary, therefore, to obtain specific information concerning the rules that must be observed in each locality. Special attention must be given to laws governing public and private use and ownership, zoning, taxation, leases, air space control and laws concerning airport approaches. Safety requirements are set by federal law and are well defined. They may be obtained by writing to CAB in Washington.

Of major importance, of course, is how much the airport is going to cost, and who is going to pay for it.

So far, only a few of the large commercial airports have been made to pay, when initial investment and depreciation are considered. Smaller landing facilities have ranged from highly successful income producers to downright failures. There are few localities which cannot point to a venture of years ago when aviation had a premature build-up and local investors in "air fields" regretted their "investments."

Even under present circumstances, it is pointed out, private or community investment in an airplane landing facility of any size or scope, should preferably be considered from its overall value in meeting the needs of the community, its worth in bringing in new business and building up present business enterprises, and in maintaining the prestige of the community in competition with surrounding localities, rather than as an investment which must be made to pay immediate and continuous dividends.

Good business management plus a reasonable portion of the postwar breaks should warrant assumption of a profit on operations. Whether such profits could be stretched to pay off anything on the original investment as well, must usually be considered to be in the laps of the gods.

There are many opinions concerning the financing of airports or other community landing facilities, and it would seem logical that final plans for local construction should await the outcome of these proposals.

Previously, most city public airports





Slash pine seedling

On this Tree... hang great things for the South

ONE OF THE GREAT DRAMAS of this age is the continuous effort-of scientific research to enlarge and extend the uses of our natural resources. An outstanding example of the success of such efforts is slash pine, an abundant natural resource of the South that has had only limited industrial uses until recently.

To the late Dr. Charles Herty, the South's large areas of slash pine had always presented an industrial challenge. After years of study and experimentation, he finally demonstrated that this slash pine could be a source of valuable high-grade wood pulp suitable for the production of rayon.

Rayonier Incorporated developed the commercial method which is now being used to produce such pulp.

The American Viscose Corporation, largest producer of rayon in the United States, cooperated with Dr. Herty in his early experiments . . . and in recent months has obtained a substantial portion of its wood pulp from southern slash pine.

There promises to be a sizeable opportunity for southern agriculture in this new market for slash pine. It flourishes on land that is poor or even unproductive. It reseeds itself . . . requires very little care during the growing period . . . may be harvested in as little as ten years. Moreover, it can be of considerable aid in achieving crop diversification.

We are proud to have helped in the development of so promising an outlet for this natural southern crop.

AMERICAN VISCOSE CORPORATION

Producer of CROWN Rayon Yarns and Staple Fibers*

Sales Offices: 350 Fifth Avenue, New York 1; Providence, R. I.; Charlotte, N. C.; Philadelphia, Pa.

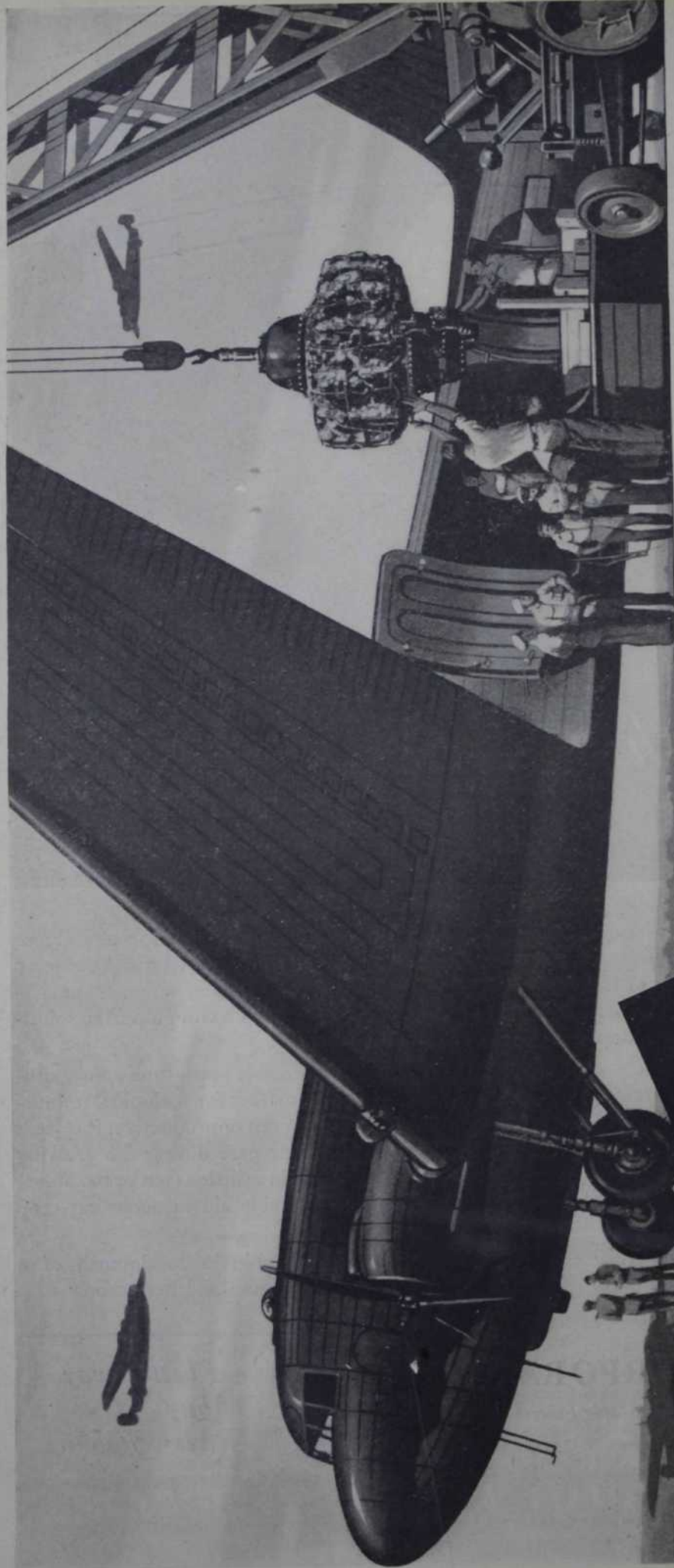
Plants at: Marcus Hook, Pa.; Roanoke, Va.; Parkersburg, W. Va.; Lewistown, Pa.; Meadville, Pa.; Nitro, W. Va.; Front Royal, Va.

BUY UNITED STATES WAR BONDS AND STAMPS



*A better way
to buy
Rayon Fabrics*

This identification is awarded only to fabrics containing CROWN rayon, after they have passed the CROWN Tests for serviceability.



TO SPEED VICTORY
BUY BONDS FASTER

Run Fly 10 Tons
Across the Ocean!

Making Pratt & Whitney engines for B-24 Liberator bombers and C-47 and C-53 cargo planes, Chevrolet built GMC "Ducks," aluminum and steel forgings, iron and magnesium castings, high-explosive and armor-piercing shells, military trucks and many other war products.

That amount of matériel will take care of the individual needs of Private Jones for about six months! For, believe it or not, *1½ tons of food, clothing and other supplies must be transported monthly to maintain one U. S. soldier overseas.*

Multiply this by the number of men in our armed forces and you'll have some idea of the titanic job facing U. S. transport facilities, including the giant C-47 and C-53 cargo planes powered by Chevrolet.

Chevrolet manufactures big, pow-

erful, smooth-working Pratt & Whitney engines for the Skytrain and the Skytrooper—"workingstaircases in existence"—just as it manufactures engines for the mighty B-24 Liberator—one of America's mightiest bombers.

Chevrolet is proud to power these mighty planes, and proud, too, that the ability of these planes to "rush 10 tons across the ocean" is contributing so largely to America's ability to fight a winning war on battlefronts all over the world.

CHEVROLET DIVISION
OF

GENERAL MOTORS

have been financed and maintained by the municipalities. A survey conducted by CAA in 1939 showed that in that pre-war year, cities owned 1,046 airports, and state governments 48.

The CAA has proposed a plan of financing and building 6,000 airports throughout the country, said to provide a landing facility for every town of 2,500 or more, similar to the present highway aid program. This has raised many controversial opinions. The National Institute of Municipal Law Officers has been particularly vocal in its opposition. It asserts that the CAA plan "has evinced no support from those who own and operate most of the airports in the United States . . . the municipalities."

This organization would have the federal Government provide financial aid directly to each city without state direction or participation. State aviation officials, however, insist that small towns would be neglected in such a program.

Under a bill introduced by Congressman Jennings Randolph (H.R. 5024) the federal Government would set aside \$1,000,000,000 for airport construction throughout the United States. This would be apportioned according to state needs as balanced against the national totals. The population of each state per existing airport would be weighed against the national population per total airports; the same formula would then be carried out for state areas and registered aircraft. It sounds complex and it is. Critics say it is unworkable.

Limited federal aid

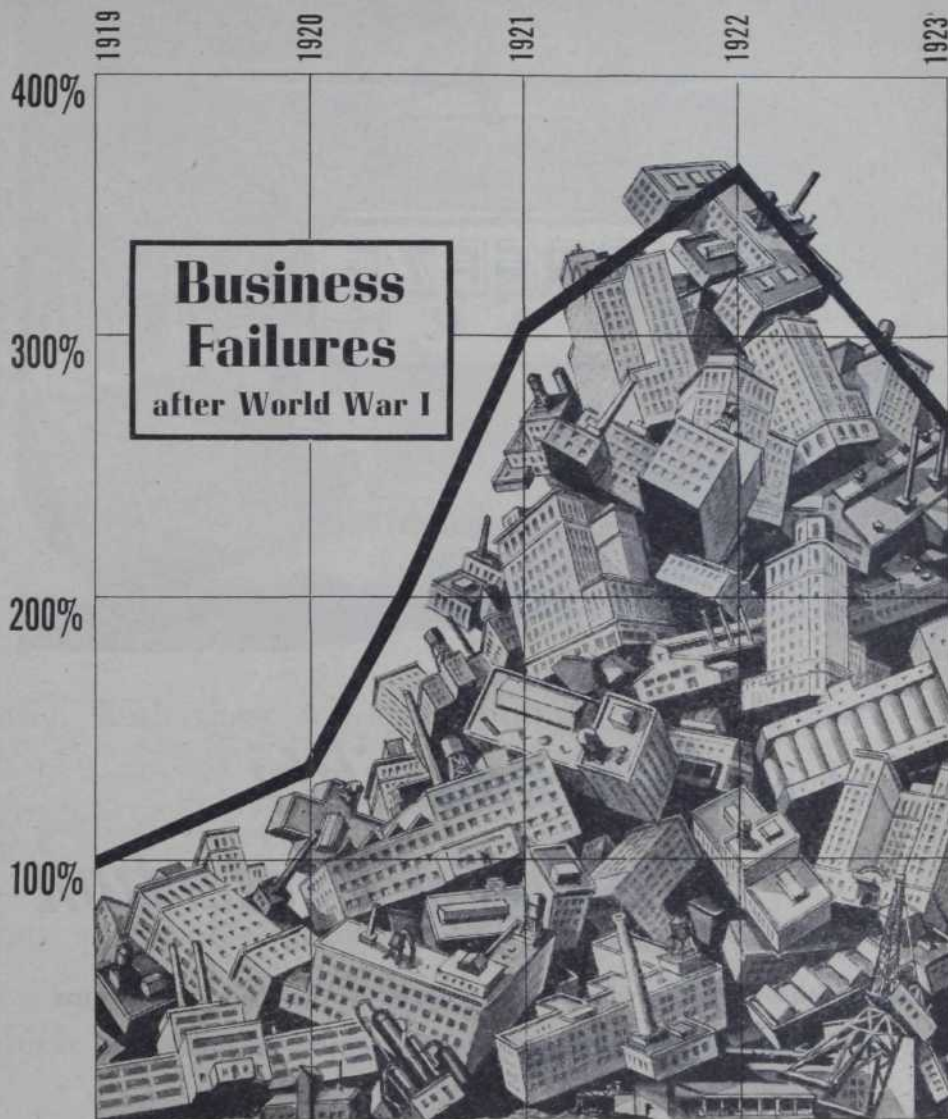
A RECENT referendum vote of the United States Chamber of Commerce indicates that popular business support would be given to a plan for a federal-aid system in which federal funds would at least be matched by local or state funds. Conditions of the proposed aid would limit use of federal funds to grading, drainage, runway construction, lighting and other safety features. No grant of federal aid would be made where such a proposed project would interfere with privately owned airport facilities. It was further recommended that publicly owned airports be put on a self-sustaining basis.

If nothing else, these and other proposals covering the financing of airport construction show that the whole question is still in the early "arguing" stage. Plans for local landing facilities could profitably take the potentials of such federal, state or municipal aid into consideration.

Of course, the airport situation is only a single facet of the complicated, many-sided and unpredictable future of aviation business development. Airports and landing facilities merely highlight a trend.

Aviation progress must be looked upon as a speculative subject from every angle, say those close to it. Considered as such, it offers business opportunities in many diverse lines for those

If History Repeats...Will YOU Foot the Bill?



After World War I . . . from the 1919 level . . . the number of commercial and industrial failures jumped 267% in three years; current liabilities involved jumped 450%.

Will History Repeat? No one knows. That's why manufacturers and wholesalers in over 150 lines of business carry American Credit Insurance . . . and why you need it too.

American Credit Insurance GUARANTEES PAYMENT of your accounts receivable for goods shipped . . . *pays you when your customers can't.* Don't face the uncertain future unprotected. Write now for more information to: American Credit Indemnity Company of New York, Dept. 41, First National Bank Building, Baltimore 2, Maryland.

J. F. Fadden
President



**American
Credit Insurance**
*Pays You When
Your Customers Can't*



Mark of *Dependability* Shield of *Protection*

**Breeze Radio-Ignition Shielding Guards Radio Communications
Against Natural and Man-made Interference**

The Breeze Mark on Radio Ignition Shielding has for sixteen years been a mark of dependability, symbolizing the quality workmanship and engineering skill that has gone into every Breeze Shielding Harness. Designed for use on hundreds of different types of engines, this shielding has been developed by Breeze engineers to eliminate the radiation or absorption of high frequency interference in radio communications. In addition to this important function, durable protection is afforded to secondary wiring systems by Breeze Flexible Shielding Conduit, which guards against moisture, corrosion and abrasion.

Now in service aboard aircraft, ships and tanks of Allied Liberation forces, this equipment is the result of years of Breeze experience in the field. With its

unequalled background of research and production, Breeze has acquired the knowledge and ability required to solve any shielding problem.



**A Few of the Many Breeze Products
in the Nation's Service**

Radio Ignition and Auxiliary Shielding • Multiple Circuit Electrical Connectors • Flexible Shielding Conduit and Fittings • Cartridge Engine Starters • Internal Tie Rods • Elevator and Rudder Tab Controls • Flexible Shaft and Case Assemblies • Aircraft Armor Plate

Breeze



CORPORATIONS, INC. NEWARK, N. J.

PRODUCTION FOR VICTORY • PRODUCTS FOR PEACE

who are willing to gamble on its outcome.

Probably every business man will be asked to join in some venture associated with aviation. Investments will be invited in aircraft manufacturing, in airlines, in air training schools, and in innumerable other enterprises tied in with the progress of air as it affects our lives and business, during the coming months and years.

In this respect, present conditions are similar to those prevailing in the early days of railroading or at the advent of the automotive age. In both of these eras some fortunes were lost while other fortunes were made.

Today, there are greater safeguards for the investor. Nevertheless, there are unknown quantities in any development in a field of the magnitude that can be prophesied for aviation. A willingness to take a chance, plus a reluctance to plunge uncontrollably as a result of possibly well meant but extravagant claims, may put individuals and communities on the "ground floor" of opportunities in the future of aviation.

Plastic Coating Is Welded On

FLAME-SPRAYING, which has been used to make metal coatings on metal and sometimes other materials, has been adapted to the coating of materials with polythene, a recently announced plastic material that has unusual resistance to corrosive elements.

Since polythene is extremely resistant to a number of chemicals and solvents, including water, it is expected to find wide use as a protective coating.

"Coatings of polythene," according to Dr. F. C. Hahn, of the Plastics Department of E. I. du Pont de Nemours & Company, "may be applied from solution or emulsion, or by the melt method. Of particular interest, however, is the application of this plastic by the flame-spraying method.

"In coating by flame-spraying, particles of finely ground material pass through a flame and are either softened on the surface, or completely melted, before they come in contact with the article to be coated. Successive particles impinge on those previously deposited before the particles solidify, and thus continuous coatings are obtained. Films or coatings applied in this way are practically free from even microscopic holes. Such coatings may be deposited not only on metals, but also on wood, glass, plastics, and even paper.

"Coatings of polythene applied to steel by flame-spraying have exhibited an unusual degree of protection against corrosion by brine and chemicals. For example, coatings on steel test specimens showed excellent adhesion after nine months' immersion in brine, and there was substantially no corrosion of the underlying metal."


Burlington has two new "humps"



They have nothing to do with camels.

These "humps" mean modern freight yards



which enable one man in a control tower  through the use of gravity and electro-pneumatic controls to sort freight cars as easily as you sort a deck

of cards



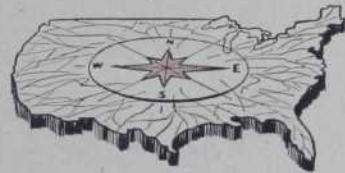
and to assemble them into complete trains



and speed them on their way. With these modern "hump" facilities, freight cars



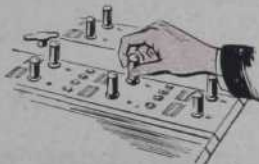
from every part of the country



are sorted,

classified and headed for their proper destinations—all by the manipulation of a

few levers



which control switches and cars *automatically*. Shipments

receive a new degree of careful, gentle but speedy handling.



These

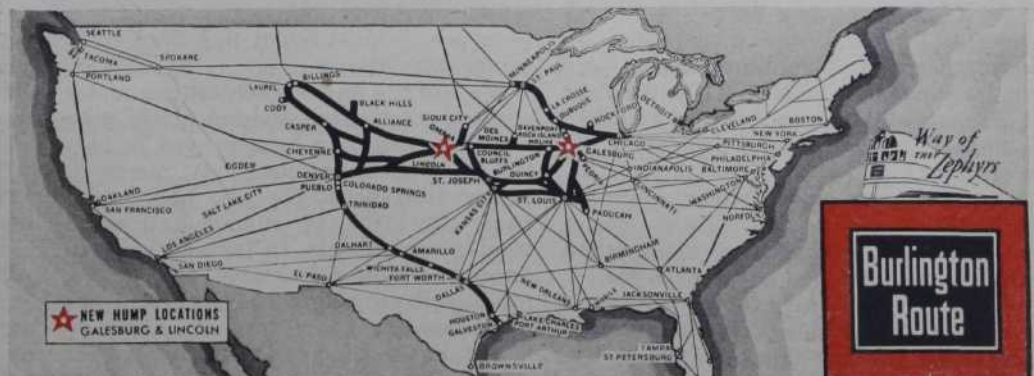
new "humps" handle as many as 9,000 cars in a single day—the equivalent of a

freight train 82 miles long. The time saved



is amazing.

• These new "humps," built at a cost of nearly five million dollars, provide one part of the answer to the question—"How can the railroads, with less equipment and a shortage of manpower, handle the biggest transportation job in history?" The Burlington is proud to be on the team of America's railroads which is sweating out the answer. Through its 22 principal gateways and more than 200 interchange points, the Burlington serves as an essential link between railroads from the North, East, South and West. These new "humps" bring additional strength to that important "link" service.



AN ESSENTIAL LINK IN TRANSCONTINENTAL TRANSPORTATION



A few days after Pearl Harbor, the War Advertising Council was formed from all elements of the advertising industry. It has been selling the public on doing the jobs the public should do

How Advertising Went to War

By JOHN CARLYLE

A BREATH to clear away the fog. The Government did not sell those billions of dollars of war bonds.

The American people bought them. The Government has no selling machinery. It has, of course, the Treasury, bookkeepers and the mint. It prints the bonds, or hires people to print them.

But, when the Government wishes to sell its bonds, it must call in the men who know how to sell.

In peacetime the Government can afford to be pretty high-nosed about bond selling. It is doing the people a favor in offering them a sure-thing, hold-fast, anchor investment. If the U. S. bond were to wash out, you could use all the bonds of all the rest of the world for composts around your rose bushes. In peacetime the Government needs only to announce that on Nov. 9 it will accept bids for a billion or so in bonds and then set up the machinery for pro-rating the oversales.

When we got into this war, every responsible man in the United States knew we had to have more money than any government had ever asked for.

We were fighting the two powers which, at that time, every one thought were the two strongest in the world. Our two fronts were respectively on the

AS A PEOPLE, we have learned to depend on advertisements as a convenient guide in satisfying our wants. When we want victory, we accept the same guidance in directing our efforts where they will do the most good

other sides of two oceans. Our Allies were being hammered in every field. Compared to the millions in the German and Japanese armies our Army resembled the dollar-a-head warriors who used to circle Oscar Hammerstein's backdrops. Our flying arm consisted mostly of pious plans. Our Navy had been pretty good but it had been scattered, starved and sunk.

We had the finest potentialities under our hand: incomparable industries, men whose fathers had been proven in battle (they should be as good), plenty of power and speed. We also had handicaps: the lack of rubber and some strategic materials. In the end we produced the most formidable, destructive, intelligent fighting force the world has ever seen.

But, at the time of Pearl Harbor that force was yet to be created, and the

money of the people was needed for the creation.

The people generally did not appreciate that fact. They were furiously angry, determined that the Japanese should be slapped back into their cage and the cage locked forever, but they were confident that this could be done quickly. They were buying bonds freely but not with that crusading spirit which alone could produce the incredible sums required.

Something had to be done.

The ad men did it!

The outdoor advertising men had already jumped the Japanese gun. Two months before Pearl Harbor, Outdoor Advertising, Inc., an association with hundreds of members in several thousand towns, had placed at the command of the Government resources which, in peacetime, helped sell America to the

Shielding the ELECTRON MICROSCOPE From Vibration

With the Electron Microscope, scientists are enabled to peer into new worlds, at magnifications up to 100,000 times. *Vibration, however, magnifies at the same rate.* Even though so infinitesimal it can't be felt, it must be eliminated if a perfect image is to be secured.

This baffling difficulty was overcome by U.S. Rubber technicians. They developed a set of rubber mountings engineered to a remarkable point of precision and efficiency. Observations revealed that these mountings completely eliminated all traces of vibration.

Makers of delicate instruments, electronic apparatus, light and heavy machinery, even railway and street cars draw upon the experience of the "U.S." staff for new and important applications of U.S. Rubber Mountings. In "U.S." laboratories, each such problem is treated individually, each mounting compounded and tooled to precise specifications.

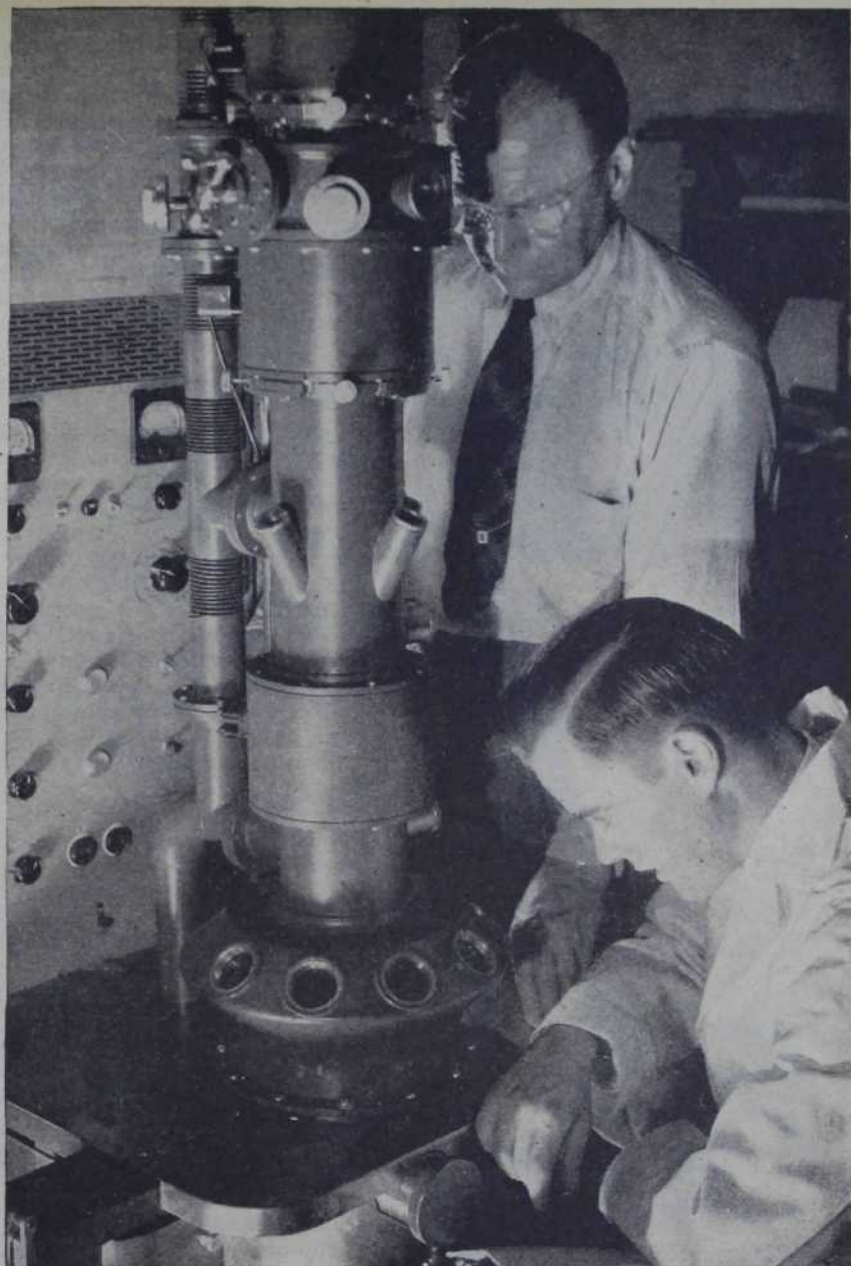
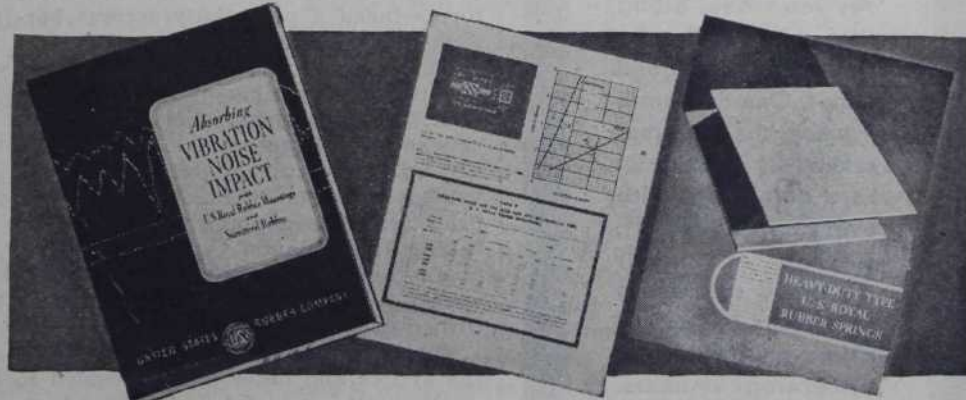


Photo Courtesy RCA



SERVING THROUGH SCIENCE



SCIENCE OF SMOOTHNESS—U.S. Rubber technology is removing guesswork from the elimination of noise, vibration and shock. Results are pre-determined and qualities of performance known in advance of installation.

AN INVALUABLE BOOK FOR ENGINEERS—an exhaustive book, "Absorbing Vibration, Noise, Impact", replete with blueprints, charts, photographs and explanatory text, contains much new and important information especially pertinent

to postwar conversion and expansion. A limited number is now available. Engineers and architects can obtain copies by writing on company stationery to "Mechanical Goods Division," Room 1406. There is no obligation.

Listen to the Philharmonic-Symphony program over the CBS network Sunday afternoon, 3:00 to 4:30 E.W.T. Carl Van Doren and a guest star present an interlude of historical significance.

UNITED STATES RUBBER COMPANY

1230 SIXTH AVENUE • ROCKEFELLER CENTER • NEW YORK 20, N. Y.

Signet of Quality
in Pipes

VanRoy



VanRoy
DUMONT
\$10

As you travel along life's highroad take time to savor its good things. One of them is VanRoy, the pipe that renews its promise of rare enjoyment with every luxurious puff. Discover for yourself the proud satisfaction of owning a VanRoy, prime preference of discerning smokers. VanRoy Co., Inc., Empire State Bldg., N.Y. 1

VanRoy Pipe Family

VanRoy ARISTA... 3.50
VanRoy BARD... 5.00
VanRoy COURIER... 7.50
VanRoy DUMONT... 10.00

world. The first thing a newly arrived European would do after he had gone through the customs was to get out on Broadway and gawk at the chariot races and spearmen and news bulletins that made Times Square known all over Christendom. The poster people long ago left behind them the "bill-posting" era when crews of roughnecks and buckets of paste and magnetic hammers left a residue of fluttering bills and smeary four-colors along the roads.

An instantaneous message

TODAY topnotch artists paint their posters which are never located "where the resentment of reasonable minded persons would be justified." They are displayed, instead, on steel structures representing a \$125,000,000 investment on the property of 250,000 owners from where they offer the fleeting motorist on 1,000,000 miles of road what Hamilton King has described as:

"A flash of line, a sweep of color, all that can be told of a tale in the passing of an instant."

Soon the motorist was reading a war message:

The Red Cross poster of the wounded soldier crumpling to earth, and the pleading legend:

"Your blood can save him."

The American Flag poster was executed by Carl Paulson under the direction of Mark Seelen, art director of Outdoor Advertising, Inc. Earle Pearson, general manager of the Advertising Federation of America, called it the "most outstanding war poster." More than 30,000 outdoor poster panels in practically every city and town in the United States displayed it on its first run. In response to demands, the Government sent out 4,000,000 colored miniatures.

The other forms of American advertising—magazine advertising, newspaper advertising, and the radio—swung immediately into line. All four forms faced a potentially serious barrier. They were bound by contracts which assured advertisement buyers definite space or time on definite schedules. The newsprint shortage handicapped the magazines and newspapers. Buyers of advertising space might have voided those contracts. After all, war priorities were stopping their sales and taking their plants. Only a negligible percentage of them have refused to cooperate. But if that space had been turned over to the Government:

The Government did not have at hand the artists and other agents needed to duplicate the privately paid for advertising campaigns.

It did not have the time or the money to set up the machinery.

Moreover, if it paid for the space placed at its disposal the bill to the taxpayers would have been enormous. If it did not pay, magazines, newspapers, radio chains and outdoor advertisers who depend on advertising revenues for life would have been in a mess.

Yet the job had to be done. Therefore, the advertisement buyers and the advertising agencies got together and did it themselves. Look in the advertising pages of NATION'S BUSINESS for a sample of the way they did it. One color ad may show soldiers or sailors or marines—or WACS or WAVES or SPARS—or fat savers, or junk gatherers, or waste paper collectors. Up in one corner is the unobtrusive square giving the name of the company paying for the ad. Or the plan may be reversed. In that corner may be a flash of the Government's immediate need:

"Buy More War Bonds."

Bear in mind that, as a people, we dote on advertising. We read the advertisements—this is said humbly—as much as we do the pure reading matter. Anyone who ever sought to save postage by tearing the advertising pages out of a magazine sent to a friend in foreign parts will remember the immediate protest. Gen. "Ike" Eisenhower had a few moments of relaxation some time ago. A reporter found him buried in the advertising pages. Gen. George S. Patton stopped biting at the hurrying Germans long enough to write home to his wife in Washington for something he saw advertised. We're all that way.

Therefore the advertisements of the Government's needs not only shook the 135,000,000 of us into a recognition that the situation was serious—they made us do what we should do and do it now!

The Sixth War Loan is just ahead. It will be oversubscribed as the previous war loans have been, by billions on billions. But it would not be if the advertising were stopped.

We need that prod to make us do what we should do.

Advertising in millions

HERE is a look at what advertising men and advertising buyers did up to and through the Fifth War Loan. It is only a glimpse because no one can ever sum up the total. No one could ever count the editorial paragraphs or the hints in news stories or the small ads about pianos that carried a short message for the Government or the front page boxes and the editorial page boxes and the sport page streamers in the newspapers.

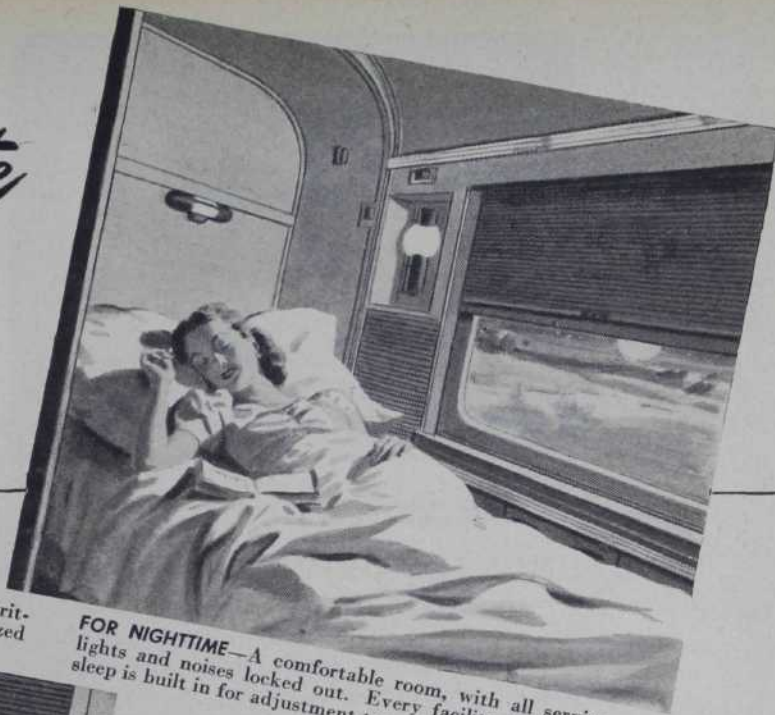
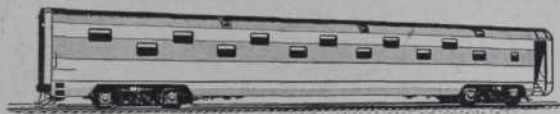
But here is a look, anyhow.

The War Finance Division of the Treasury states that the war bond advertising in the Fifth War Loan campaign alone is fixed at \$24,981,670. Even in these billion dollar days that isn't alfalfa.

Broken down into groups—the Treasury calls them media, but that sounds too much like an imported word—the advertisements in daily and weekly newspapers totaled \$10,160,709 in value, the radio \$11,000,000, general magazines \$1,578,682, outdoor advertising \$1,076,838, business publications \$789,990, and farm magazines \$375,450.

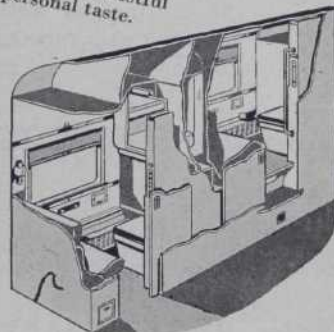
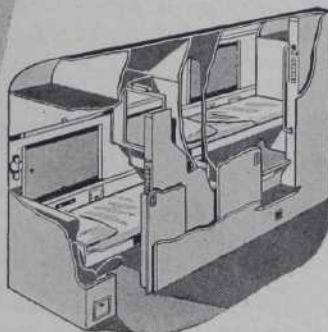
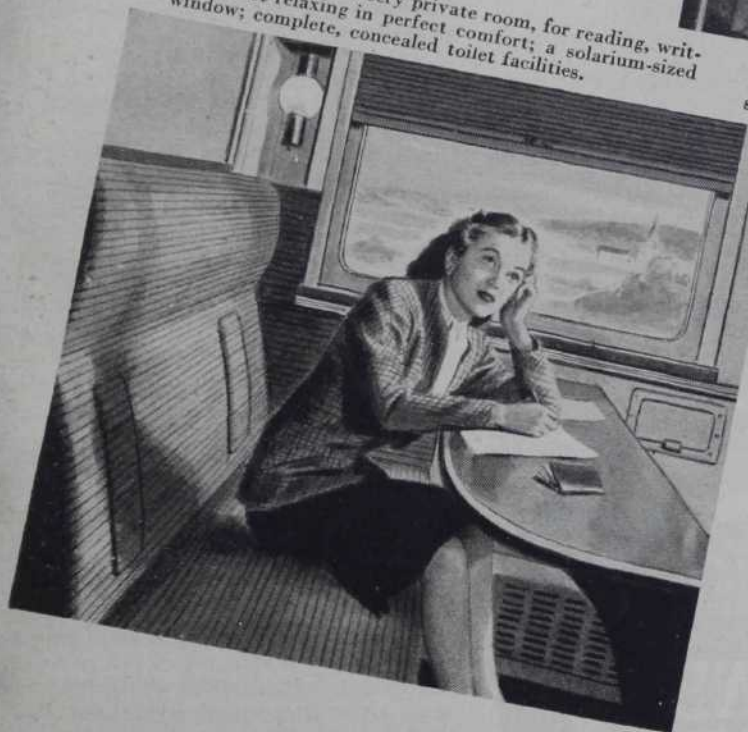
As a result of this terrific barrage, the Fifth War Loan goal of \$16,000,000,

HERE IS THE NEW LOW-COST
Duplex-Roomette
 -A COMPLETE PRIVATE ROOM



FOR DAYTIME—A cheery private room, for reading, writing or just relaxing in perfect comfort; a solarium-sized window; complete, concealed toilet facilities.

FOR NIGHTTIME—A comfortable room, with all service lights and noises locked out. Every facility for restful sleep is built in for adjustment to your personal taste.



YOUR ROOMETTE BY NIGHT

The beds—6' 5" long—are made up before train time, and can be set in place without calling the porter. Bed in lower room slides under floor of upper room. In the upper room bed is of fold-in-wall type. Both lock automatically into day or night positions. Other conveniences are: plenty of coat hooks; shoe box with outside door for porter; electric shaving socket; ample reading light. Solid sliding door locks for privacy.

YOUR ROOMETTE BY DAY

Arranged on each side of a center aisle, alternating rooms are two steps below the others. Their adjustable seats, beside large windows, have sponge rubber backs and seat cushions in the latest body-fitting contours. Each is equipped with complete toilet facilities; comfortable full length bed, individual control of heat, light and air conditioning; cooled fresh drinking water; liberal (out-of-the-way) space for baggage.

★ ★ ★

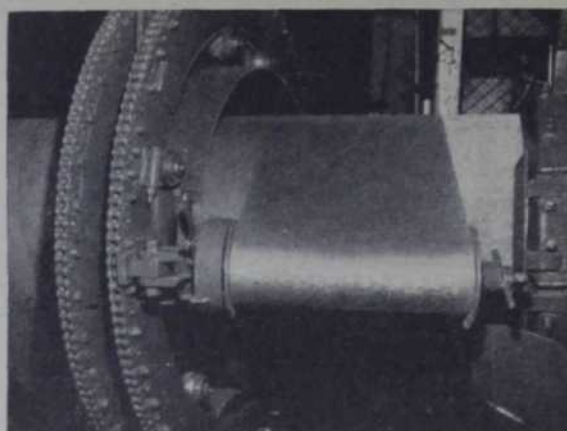
In our engineering exhibit rooms, the trains of tomorrow are made up today. The "Threedex" commuters' coach . . . the new "Day-Nite" Coach . . . an entirely new arrangement in Dining Cars . . . and many other postwar cars of improved types are ready for production. They are the result of a planning and research program which will help create employment in the days to come. Today, our first task is producing armaments, and new cars must await the release of men and materials. Then, the Duplex-Roomette and a whole series of lightweight, extra-comfort cars can be built for the streamlined fleets of progressive railroads.

Completed and placed in service shortly after Pearl Harbor, this Duplex-Roomette is the *first and only car of its kind ever built*. Typical of Pullman vision and leadership, it is a true "pilot" model of the postwar, popular, private room-car . . . the car the public has been waiting for.

In pioneering for the new era of low-priced travel comfort, Pullman-Standard built into this car the de luxe facilities now available only in higher-priced accommodations. Roomettes, arranged in duplex principle, allow 24 individual bedrooms per car, making possible a price within reach of the modest travel budget. Its *solo* performance has won enthusiastic passenger acclaim in over three quarters of a million miles of record-breaking, war-time service on some of the nation's crack trains.

BUY AN EXTRA BOND IN THE 6TH WAR LOAN

Pullman-Standard
 CAR MANUFACTURING COMPANY
 CHICAGO • ILLINOIS
 World's largest builders of modern streamlined railroad cars



Chain EASILY MEETS UNUSUAL DRIVE REQUIREMENTS



Morse chain and sprockets on pipe-wrapping machines mean positive, accurate control. Wrapping is applied evenly and under correct tension to insure maximum useful life of the coating, as well as the pipe it protects. Wherever power must be transmitted or controlled accurately and efficiently, Morse Chain has the answer. Consult your Morse engineer.

SPROCKETS

CHAINS

FLEXIBLE COUPLINGS

CLUTCHES

MORSE *Roller and Silent* CHAINS

MORSE CHAIN COMPANY • ITHACA, N. Y. • DETROIT 8, MICH. • A BORG-WARNER INDUSTRY

Make PHOTO-EXACT Copies of Valuable Papers *Safeguard Originals!*



A-PE-CO "Photo exact"

PHOTO-COPYER
\$55.
COPIES UP TO
18" x 22"

Non-Fading Photo-Copies of
• LETTERS • DOCUMENTS
• RECORDS • BLUEPRINTS
• PICTURES • DRAWINGS

Errorless "same-size" facsimiles of anything up to 18" x 22". Eliminates steno-copying, tracing, proof-reading. Photo-copies direct from letters, blueprints, graphs, tracings, telegrams, receipts, shop orders—anything written, printed, drawn, photographed. Accepted as legal evidence. Endless uses. Big savings. Used by industry, Government and engineers.

No Camera—No Darkroom—Easy to Use

Any employee quickly becomes expert. Use A-PE-CO on any desk or table. It's simple; fast. No moving parts. Saves other equipment. Conserves man-hours. Low cost per copy. Low investment. Get all the facts. See how you can save. Immediate delivery.

AMERICAN PHOTOCOPY EQUIPMENT CO.
2849 N. Clark St. Dept. BR-114 Chicago 14, Ill.
Representative in Principal Cities

In Canada: Railway & Power Engineering Corp., Ltd.

M.S. WALKER, Inc. BOSTON, MASS.
MAKERS OF FAMOUS OLD MELODY
LIQUEURS AND OLD MEDFORD BRAND RUM

000 was oversubscribed by \$4,000,000. Individual buyers had been called on for \$6,000,000,000. They topped it by \$351,000,000. The "E" bond quota was oversubscribed by \$36,000,000. Three billions had been asked.

In this war bond campaign alone, not speaking at all of the other campaigns for saving telephone time, writing V-letters, taking fats to the butcher, stamping on tin cans, or enlisting in the women's organizations, the newspapers ran more than 203,000 advertisements. In this one campaign 1,355 magazines contributed 1,866 advertisements, mostly large ones, many of them colored, much of the art done by the most competent commercial artists.

In addition to paid ads, the general magazines gave space to the dollar value of \$217,682, business publications \$199,080, and farm magazines to the total of \$161,000.

No cost to the Government

NO ONE ever counted the stories on all the different things the Government wished advertised, all of which were contributed by the magazines and newspapers. In spite of increased paper restrictions and the increasing difficulties of wartime publishing, 2,026 magazines gave their covers to the war bond advertising.

All this—and so much more that it could not be counted—did not cost the Government one thin dime.

An official statement from the War Bond Division of the Treasury is that: "Not a single penny of the taxpayers' money goes into this huge advertising program for time and space. All radio time and every line of advertising space is made possible by patriotic businesses and individuals—by the advertisers, agencies and media men of America."

This is how they went about it. A few days after that sneak attack at Pearl Harbor the War Advertising Council was formed to "mobilize the power of advertising for victory." It was then called the most ambitious missionary effort in the business history of the United States. It involved harnessing to the same wagon a large number of highly competitive groups, it involved patient and exasperating work in overcoming prejudices and misconceptions toward advertising and an educational job in government and business alike.

It isn't so long ago that some intellectuals were trying to wipe advertising out of the national picture. Advertising, they said, costs money. Therefore it adds to the cost of the things we buy. Therefore we should economize by eliminating advertising. The idea will not be argued here. It was on a par with the delusion which some years ago led a number of excellent people to wear nightgowns up hills at dawn to see the end of the world.

The Advertising Council is a non-profit, voluntary organization, made up of representatives of all elements of the advertising industry. All services are

rendered gratis. It is financed by its sponsoring organizations and a few individual contributions. Its work is usually channeled through the OWI, but not all OWI's programs are Council campaigns. The Council accepts only those which it feels cannot be solved by the use of government facilities alone, and which need the power, persuasion* and repetition of advertising.

Working with OWI, the Office of Economic Stabilization, WFA and OPA and the War Manpower Commission—and with other government agencies on occasion—the Council prepared a campaign guide, hundreds of magazine and newspaper ads, enlisted national and local advertisers such as banks, public utilities, department stores and the like.

Four hundred and ninety magazines with a circulation of 91,000,000, at last accounts, were contributing one page a month.

In newspapers in 170 major markets, the Life Insurance Companies sponsored a \$1,500,000 campaign against inflation. Lot owners were interested in cultivating more than 20,000,000 victory gardens, which produced in a single year 8,000,000 tons of food worth \$500,000,000.

To make it short, every phase of the war effort was brought before the public again and again—shouted, sung and danced until the 135,000,000 of us worked as a team. Here and there one of us loafed, or grumbled, or even hung back. But the team pulled as a team. Otherwise we could not have done what was done.

Thanks to the ad men.

Waterproof Zippers

METAL SLIDE fasteners are now made which may be waterproof or prevent the escape of air or gases. The device, known as the Pressure Sealing Zipper, has overlapping rubber lips which give enough pressure to assure a perfect seal against any pressure which the structural strength of the slide fastener will withstand.

The lips may be placed on either the inside or outside of the zipper. Used on the outside they make the article waterproof and prevent the entrance of air or gases. Used on the inside, they prevent the escape of air, gases, or liquids.

The pressure seals are effective in a wide temperature range, not cracking when bent at 70 degrees below zero Fahrenheit—not becoming soft at 150 degrees.

In the airplane industry, the new seals are expected to be used in joining high and low pressure ducts, on doorways, handholes and other openings where there are pressure differentials.

They can be used on tent flaps, where the seal makes the flap watertight. They serve to make watertight the hatch covers on shipboard and as seals for many types of emergency equipment.



WRAP SECURELY ADDRESS CLEARLY EXPRESS BEFORE DEC. 1st

BEFORE YOU can wrap, address and ship you *first* must have bought something. Have you completed your Christmas shopping, particularly for those gifts you will send out of town? Railway Express relied on by generations of Americans for speeding gifts and goods safely to their destinations, suggests you do it now. And here's why: The shipping needs of our country at war are urgent.

You, as a gift sender, can help us serve your interests, too, by doing these three simple things:

- 1 Shop and ship before *December 1st*. Phone Railway Express when the packages are ready to go.
- 2 Wrap your gifts carefully and securely.
- 3 Address them clearly with your own and the consignee's name, street number, city and state.



NATION-WIDE

RAIL-AIR SERVICE

KEEP 'EM OUT



Smoker's B-B JEEBIES (BITE and BURN)

Smoking is *ALL* pleasure—with Country Doctor Pipe Mixture. Here's why! Country Doctor's extraordinary blending experience; selection of the choicest tobaccos; skillful use of the perfect moistening agent... all three of these superior advantages *together*... definitely do away with Smoker's B-B JEEBIES (Bite and Burn) which usually lurk unseen in ordinary tobaccos. Try Country Doctor Pipe Mixture. Fragrant-cool-and Oh so different.

Country Doctor Pipe Mixture



25¢
A Product
of Philip
Morris

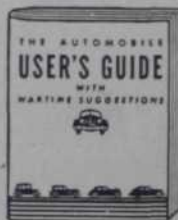
PLEASURE BY THE PIPEFUL

If your dealer doesn't have it—write Philip Morris & Co., Ltd., Inc., 119 Fifth Ave., N. Y.

Will Your Car Outlast the War?

As a special wartime service to owners of **ALL MAKES** of cars, General Motors offers a new edition of The Automobile User's Guide, containing 196 practical suggestions on such subjects as *how to get better gasoline economy, how to prolong tire life, how to keep your car in the best operating condition, etc.*

- You Can Get a
- FREE COPY
- from Any GM
- Dealer—or by
- Using Coupon.



Customer Research Dept., Room 1760
GENERAL MOTORS, DETROIT 2, MICH.

Please send FREE COPY of new 64-page
"AUTOMOBILE USER'S GUIDE"

Name.....
please print

Address.....
please print

City.....
State

Make & Model
of Car Owned.....

World Trade:

BUSINESS MEN will try their hands at making postwar world trade a benefit to humanity

AN INTERNATIONAL Business Conference attended by outstanding business personalities from the allied and friendly nations will be held at Rye, N. Y., Nov. 10 to 18 to discuss postwar world trade and commerce.

Sponsors of the conference are the United States Chamber of Commerce, the National Association of Manufacturers, the National Foreign Trade Council and the American Section, International Chamber of Commerce.

President Eric A. Johnston of the U. S. Chamber said:

"Governments are holding conferences on postwar plans. Business, too, must get ready for peace. It should go ahead with its own program.

"With this in mind, business organizations from all the 40 United Nations have been invited to send representatives to an International Business Conference this fall. Thirty-seven already have accepted. Each is sending a maximum of six delegates and six technical advisers. They, and we, are most vitally interested in a prompt rebirth of international trade.

Trade conditions are changed

"THERE will be big changes in the postwar world of trade. Germany and Japan will not be major factors in world markets immediately following the cessation of hostilities. Other nations will loom larger than before the war.

"International trade is conducted mostly by business men. They know far better than any other group how it should be operated. Governments can do only so much. Business must carry on from that point."

The conference is not sponsored by the governments.

Topics so far proposed for discussion are: commercial policy of nations, currency relations among nations, industrialization in new areas, transportation and communication, raw materials, cartels, encouragement and protection of investments.

The sponsoring organizations have stated that they oppose monopolistic practices; they advocate abatement of wartime government controls in the United States, the expansion of trade between nations and preservation and development of competitive capitalistic systems.

In addition to Allied Nations, Argentina, Eire, Sweden, Switzerland and Turkey have been invited to send representatives.

EVEN IN WAR TIMES

we still use...fragrant chocolate, personally selected for quality and taste appeal...the best fresh cream and butter available...delicately blended flavors and choice nuts. To these fine ingredients we bring the cooking skill inherited from our Pennsylvania Dutch ancestors.

That's why our candy has that home-made flavor.

You may have a little trouble getting our unusual candies as the services must be supplied, but keep asking your dealer for Miss Saylor's French Cream Chocolate assortments at \$1.35 a lb. Coffee-ets in 60¢ and \$1.10 sizes.



MISS SAYLOR'S CHOCOLATES, INC.

ENCINAL AVENUE • ALAMEDA, CALIFORNIA

Fighting for More Production?

YOU NEED
EXECUTONE!



How This Modern "Inter-Com" System Saves Man-Hours...Increases Output
EXECUTONE puts you in instant conversational contact with every department of your organization! Saves time... conserves energy... minimizes waste motion.

EXECUTONE enables you to get information from your employees *the instant you want it*—eliminates the everlasting running back and forth from one office to another.

EXECUTONE speeds your phone service by taking the load of "inside" calls off your switchboard. Cuts down busy signals and expensive call-backs. Saves you money in many ways.

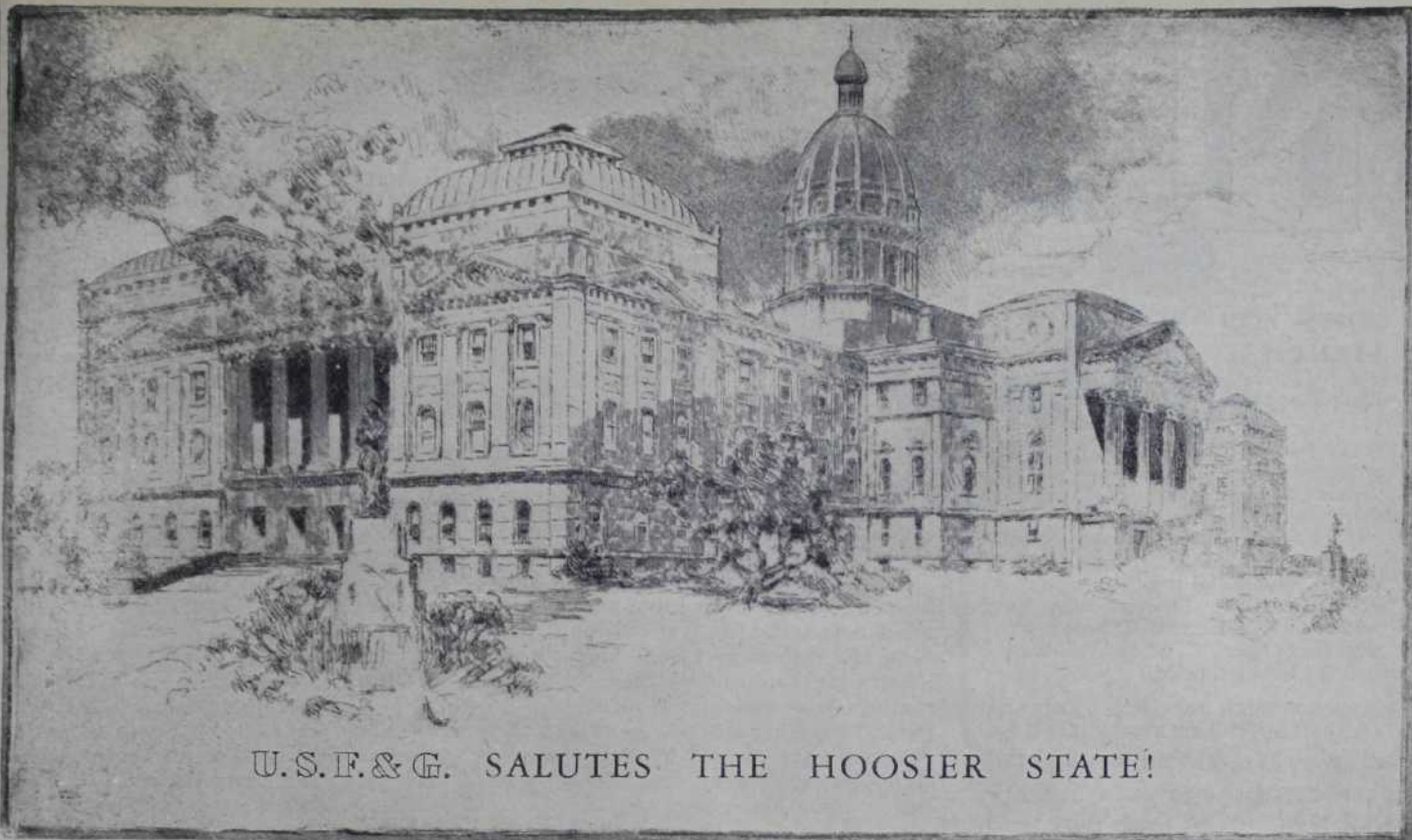
The "inter-com" system selected by the U. S. Navy for many of our fighting ships.

Write for FREE booklet "N-11"

Executone
COMMUNICATION SYSTEMS

415 Lexington Ave., New York 17, N. Y.
Service in Principal Cities

Back the Attack—Buy War Bonds!



U.S.F.&G. SALUTES THE HOOSIER STATE!

Indiana's Beautiful state capitol at Indianapolis . . . constructed largely of native Indiana limestone . . . is typical of the stately buildings that grace the Hoosier State. U.S.F.&G. is proud that its contractors' bonds helped assure construction of many of these imposing public works.

Indiana Builds to Last!

"PERMANENCE" is the word for Indiana. You can see it in her massive public buildings . . . in her rich farmlands, kept black and fertile generation after generation . . . in the stark strength of the Calumet region, one of the world's greatest industrial centers. Crossroads of America, Indiana is a state that looks to the future, a state that builds to last! With this determination to build

strongly and well . . . this resolve to forge ahead in unchecked progress . . . it is only natural that Indians should seek certainty in insurance. To serve this insurance-minded state, U.S.F.&G. requires a large branch office at Indianapolis . . . agency offices in 197 cities and towns throughout the state. Thus nearly every community in Indiana is served by a U.S.F.&G. representative.

This complete U.S.F.&G. coverage is not restricted to Indiana alone. Few communities in the United States, its territories, and Canada are without the services of a U.S.F.&G. agent. So wherever you are and whatever you do, look to your local U.S.F.&G. representative for guidance in all casualty insurance and bonding problems. Consult him as you would your doctor or lawyer.

Consult your insurance agent or broker



as you would your doctor or lawyer

U.S.F.&G.

UNITED STATES
FIDELITY & GUARANTY CO.

affiliate

FIDELITY AND GUARANTY FIRE CORPORATION
HOME OFFICES: BALTIMORE 2, MD.



WHEN YOU THINK OF STENCILS THINK OF **MARSH**

Stencil-Marked addresses make for prompt delivery. That's why they're the required type of marking for all war shipments. Marsh-Stencil your shipments! Saves up to \$600 annually in shipping room costs! To use, simply cut a stencil, stroke with a Marsh Stencil Brush and your shipment is legibly, permanently addressed. Three sizes to meet Gov't Spec. 1", 3/4" and 1/2". Write now for booklet, prices.

MARSH STENCIL MACHINE COMPANY
72 MARSH BLDG., BELLEVILLE, ILL., U.S.A.

USE THESE MARSH PRODUCTS



MARSH



MARYLAND'S AMBASSADOR OF GOOD CHEER



NATIONAL PREMIUM BEER

PALE, DRY, BRILLIANT

THE NATIONAL BREWING COMPANY, BALTIMORE, MD.

It's What You Have Left

(Continued from page 27)

able business have lost an arm. Some have lost a leg. A few have lost both legs. There are perhaps 30 victims of infantile paralysis and almost as many deaf mutes. With these workers G. Barr & Company is filling various Navy contracts in addition to making a wide range of cosmetics, toilet requisites and medicinal preparations.

Of the handicapped persons in the plant, some were relief or charity cases for a long time. Others had little industrial training. Specifically what are they able to do that makes it possible for them to earn their way without asking favors? Here are the jobs that must be done:

Cosmetics and pharmaceuticals must be compounded. Caps must be placed on tubes before the tubes are filled. Bottles, jars and tubes are filled, closed and labeled. In some cases there is an assembly job where several units are packed together. In any event the various items are packed in fiber cases for shipping, and there are half a dozen essential clerical tasks.

They turn it into routine quickly—all jobs in the plant have to become routine, Mr. Barr says—and work at speeds that others with normal vision can't match.

Men who have lost a leg or are paralyzed in their legs operate tube or bottle-filling machines. The actual filling is done automatically. Feeding of tubes or bottles to the machine is a hand job. A pedal operated by one foot controls the machine. Deaf-mute girls operate the bottle-filling machines and labelers. Most of the assembling, wrapping and packing into cartons falls to paralytics who have the use of their hands. They are, of course, seated, and materials and supplies are brought to them by several husky youngsters who can get around readily enough but have handicaps such as epilepsy or arrested mental development. These boys also pack cartons with merchandise that is ready to ship. Clerical jobs are well within the abilities of a boy who has lost an arm, a girl who has a severe case of arthritis and a young spastic who is also a master of arts from the University of Chicago.

Visitors to the plant, located now in



Deaf mutes, two of whom here receive an award from a veteran who lost a leg in Italy, do many jobs in the Barr plant

Blending and mixing of chemicals and other raw materials are work that deaf mutes can perform without any difficulty. They learn quickly, are accurate, careful and not easily distracted. The men show surprising mechanical skill in repairing and maintaining equipment.

Putting plastic screw caps on metal tubes is work that the blind find easy.

one of the city's modern manufacturing districts, frequently expect to be depressed and maybe a little embarrassed. Most people look for something suggestive of a hospital ward or a rehabilitation center. Actually the resemblance does not exist. This is a 1944 industrial factory.

People work here, and how they work! They aren't nursed or coddled. It's sim-

To business men who are thinking about

A PLANT IN THE WEST, TEXAS OR LOUISIANA

after the war...

Perhaps we can be helpful to you.

Although your company may be fully occupied with war work now, no doubt you, like ourselves, are making plans for post-war manufacturing and selling.

You are familiar with the great population increases in certain states West of the Mississippi. And you may be thinking about a branch plant or additional distribution facilities in this area—not only to serve your customers out here, but also with an eye to the vast undeveloped markets of Asia, and Central and South America.

If you are thinking along these lines, we respectfully ask you to write us. We think we can be helpful to you.

Southern Pacific is the largest western railroad, and has more miles of line than any other United States railroad. We serve Louisiana, Texas, New Mexico, Arizona, California, Oregon, Nevada, Utah, and the West Coast of Mexico. We know this territory intimately, for we are the West's pioneer railroad.

The eight Southern Pacific states gained more than a million people since 1940, according to the U. S. Census Bureau.

In the West alone, Southern Pacific serves more than twice as many communities as any other railroad, many of them exclusively. So if your plant is located on Southern Pacific, the chances are two-to-one that your western customers are served by our rails, too.

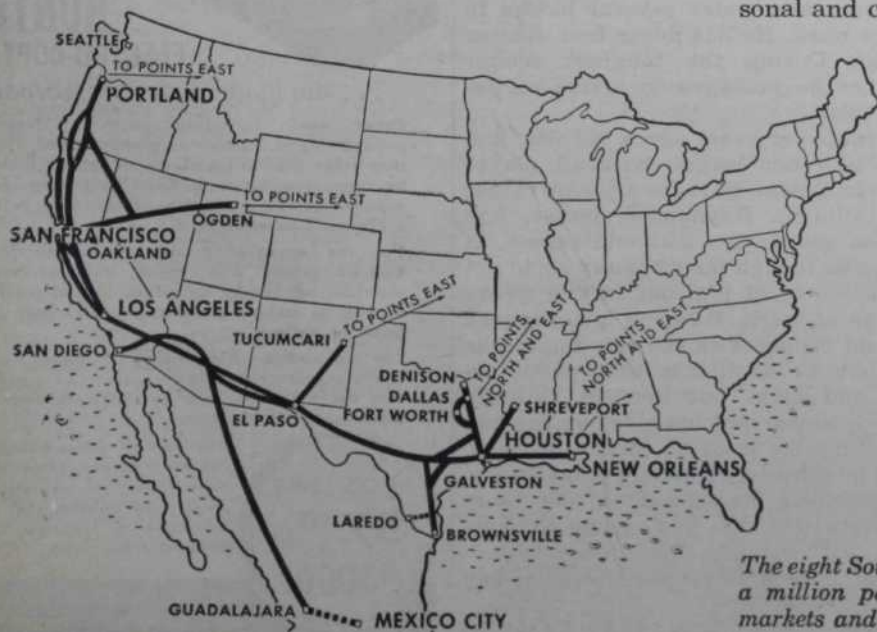
We have an experienced industrial department, and traffic men in every sizeable city and town along our lines. These men live "on the ground" and are important citizens in their communities. They will be glad to develop any specific information you wish.

You may be sure that any advice we give you will be sound and unbiased, for if the plant location we recommend should prove unsuited to you, our railroad would suffer, too.

We have been handling matters like this for many years, and those who have dealt with us know that we can be trusted with their most confidential plans.

If you have any interest at all in industrial sites or distribution facilities in our territory, please write me. I assure you that your inquiry will receive prompt, personal and confidential attention.

W. W. HALE, Vice-President,
System Freight Traffic, Southern Pacific Company,
65 Market St., San Francisco 5, California



S·P
The friendly
Southern Pacific

The eight Southern Pacific states gained more than a million people since 1940. Population means markets and manpower for your industry.

BACK AGAIN



ALL ELASTIC



PARIS GARTERS

NO METAL CAN TOUCH YOU

● Give your legs and looks the best of it! These all elastic Paris Garters are "tops" for value, comfort, service. Ask for Paris by name. Look for the famous "Paris Kneeling Figure" trade mark on the package. When you say "I want Paris" you exercise your right to choose what you use. Trust the trade marks which have stood the test of time. Paris Super Quality, All Elastic Garter, \$1. Other Paris styles: 55c to \$1.50.

A. STEIN & COMPANY • Chicago • New York

ply that jobs are so nicely fitted to the people doing them that, for practical purposes, handicaps actually do not exist—and practically nowhere will you find workers who feel less sorry for themselves.

The world calls these somewhat shy people "cripples." It has made them sensitive and easily embarrassed. It has also made them considerate.

The legless colored man at one of the machines is sure that his neighbor, who has lost an arm, is much more unfortunate than he. The blind folks sympathize with the deaf mutes who can't sing at their work as the blind people can and do when the impulse strikes them. The paralytics feel sorry for all the others; they *know* they are the least afflicted workers in the plant. Dejection and discouragement have a hard time taking root in this environment. When you believe all the others around you are having a tougher time than you are, what is there to complain about?

Easy to find employees

ALMOST the first thing Mitchell Echkovitz, the deaf-mute printer, did when the business showed signs of going anywhere was to bring in some of his friends who are similarly afflicted. He knew they would fit into the plant. This tendency of handicapped people to help each other has been apparent ever since. Until the company started working on government contracts a little more than a year ago it never needed to look for workers. Its employees took over the matter of personnel and kept it from becoming a problem.

Hard, useful work is a great solvent for troubles, especially if the work happens to be remunerative. George Barr's employees want to work. They work at a rate that is almost unbelievable. Experience tends to indicate that often one physical handicap helps a man or woman to develop great skill and manual dexterity.

Absenteeism is less than in most plants working on war contracts. One of the blind men, accompanied by his seeing-eye dog, rides on three street car lines and walks several blocks to get to work. He has never been late or absent. During the toughest winter weather he manages to arrive earlier than usual.

A couple of years ago a lad who had been a minor league baseball player came to George Barr for a job. A rather rare ailment, Raynaud's disease, had put an end to his diamond career. It looked as though the company could not find a job to fit him but in two weeks he was at work. Wearing a headphone set and typing with the few fingers he had left, he learned to take phone orders and make out invoices skilfully enough to warrant his place on the pay roll. While he lived he earned his way. Until he came into the Barr plant, broke, helpless and knowing that few years were left to him, he had existed on charity.

That case illustrates as well as any

Speed Sweep WITH A BACK OF STEEL



Makes Light Work Out of Tough Sweeping Jobs

Steel back of Speed Sweep brushes is the basis of unique construction for faster, easier, better sweeping. Block is $\frac{1}{2}$ usual size—easier to handle. Tufts of longer, better fibres are more compact—provide "spring and snap" action. Handle instantly adjustable to height of sweeper—reduces fatigue and strain. Speed Sweep brushes are built to outlast ordinary brushes 3 to 1.

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how the company operates. First of all, it isn't a pseudo-business motivated by charitable impulses. It has costs to keep at a minimum, markets to find and develop in a field where competition is not a thing with which to toy lightly.

The company's customers don't buy its products because they agree that it's an inspiring thing to make jobs for handicapped people. The fact is that Mr. Barr, and he is frank about it, has no special interest in trying to fit handicapped people into jobs. The aim that has dominated his enterprise has been to make jobs fit handicapped men and women. There's a difference.

In his plant, as in practically every industrial plant, work must be done efficiently or the business fails. His own depressing experience made him see clearly that industry was neglecting to realize that handicapped people could perform many of its tasks as well as anyone. A few weeks with his own struggling loft business opened his eyes to another new concept: Handicapped people are eager workers, capable of sustaining their efforts over longer periods of time, when their jobs really fit them, than so-called normal workers.

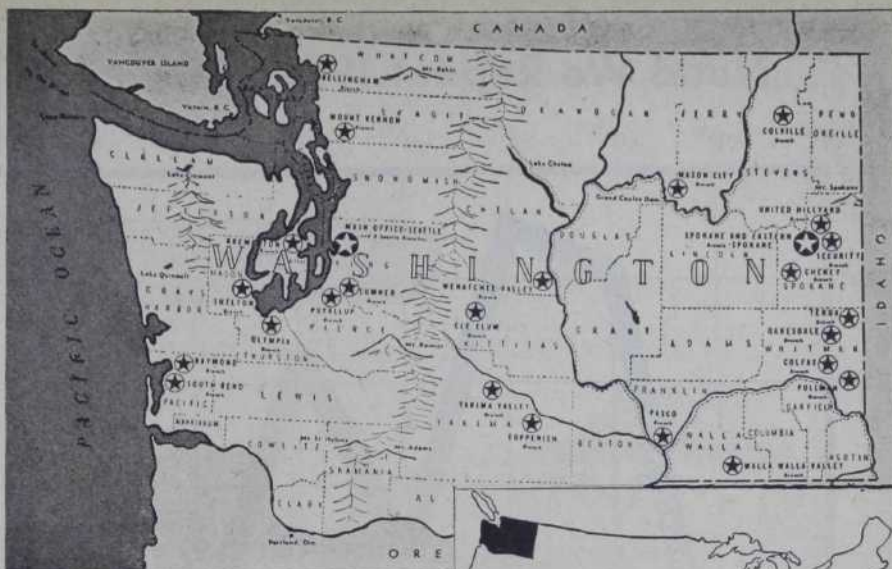
Mr. Barr pays the same wages that other companies pay able-bodied workers. Whites and colored people work side by side in his plant without friction. No one gets a job there unless the job fits the worker's capacity to work. The average wage is \$35 a week. Several of his people earn double that. Now \$35 isn't a princely wage but \$35 a week and self-respect look better than good to the man or woman who has been told in a hundred different ways that there's nothing left but handouts.

Work is not monotonous

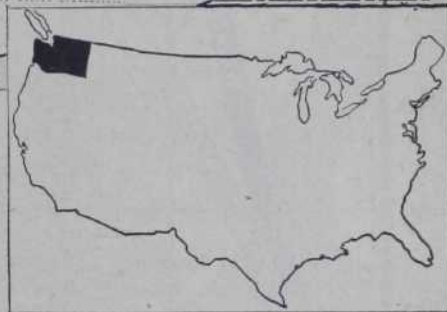
SUCH people find it easy to keep going at tasks that other folks often find tiring and monotonous. The blind people in the plant do higher quality work and do it a third faster than others who have their sight. Many times the company has been able to bid as much as 20 per cent under competition on a contract and still make a normal profit, solely because of the way its handicapped workers produce. There is no military secret in the fact that the Government saved \$1,000,000 on a single contract because George Barr learned, the hard way, that the worker who has lost something is the worker who knows how to overcome adversity if he's given the chance.

Already impressive numbers of maimed men are coming back to America to establish individual beachheads in a new and different world.

For years humans have been regarded as flexible material. Educators and industrials have worked to make men fit jobs. George Barr has reversed that technique, not as a philanthropist but as a hard-headed business man looking for a profit. He has demonstrated what can be done when handicapped people have the courage to remember: "It isn't what you've lost; it's what you have left that counts!"



The population of Washington State has increased by 316,101 since 1940 — a gain of 18 per cent.



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34 strategically located Banking Offices in the State of Washington — shown by stars on map above.

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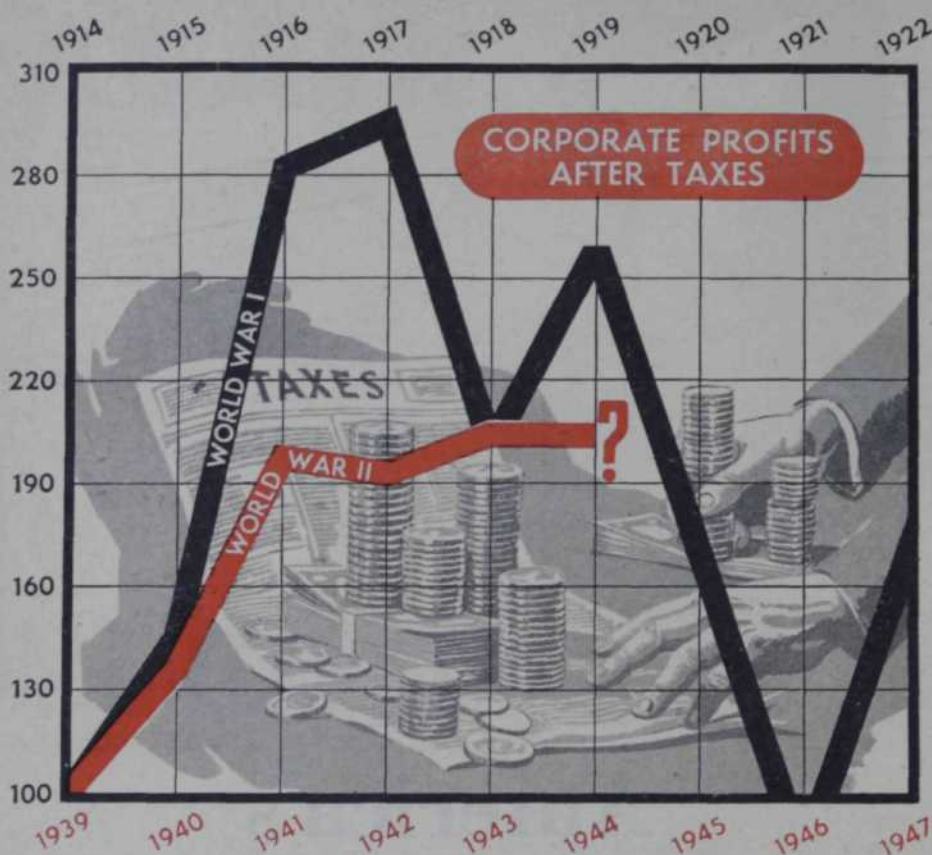


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Need We Repeat 1920's Spree?



Corporate profits during World War II have been less erratic than during the last war. Will smaller war-time profits mean a smaller postwar crash?

(Continued from page 22)

isting price controls one way or another, there is just no comparison between the price-control accomplishments of the last war and of this one. Similarly, with rationing.

This war has been longer. Because of that, but particularly because of production controls and rationing, our pent-up demand for goods and services—reflecting only in part our larger present population—today is vastly greater than last time. The American people have put nearly \$100,000,000,000 aside in savings since the war began. Much of this will stay saved for a long time. Some will not. At any moment, after the war, dammed-up spending power may become restive. Scores of billions in consumers' hands is something for the business man to keep an eye on, for good or for ill.

From the standpoint of wartime mobilization of business and industry, this war has been much closer to "total." In 1918, 30 per cent of our industrial effort and 4,000,000 men were mobilized for war. This time, 65 per cent and 11,000,000 men. These are two yardsticks of the reconversion task.

Consider, too, how our gross national product has gone up, from \$89,000,000,-

000 in 1939 to \$187,000,000,000 last year. Of the 1939 total, war expenditures were only two per cent, while in 1943 they explained 44 per cent of the total national product. To readjust to peacetime levels of activity will be painful enough. To substitute peacetime orders for war orders won't be easy. Temporarily, as in 1919-20, deferred demand will help. But after that, what?

It is said that, at present prices, if the national product dropped back to \$165,000,000,000, we would still have a reasonably satisfactory level of employment. That much readjustment will pose a tremendous reconversion job: to drop some \$20,000,000,000 of production. Painful or not, we can conceive of business dropping off much more than that. If business under private guidance does not succeed in sustaining postwar the \$165,000,000,000 level of activity, there is a very good chance that Washington will step forth with official projects to take up the slack. This line of Washington thinking is something business men did not have to consider in 1919.

Today we have millions more men abroad than in the last war. Their repatriation, quite apart from any occupation of enemy territory after the fighting ends, will be slow. And many more workers are engaged in war work than last time. The Bureau of Labor Statistics estimates that, in reconversion, new jobs will have to be provided for 14,500,000 individuals.

Other points to remember: We now



So far in this war commercial failures have roughly paralleled the record of the past war. Then failures increased sharply beginning with 1920

HEADACHE OR HEADSTART

which will be yours on contract-termination day?

When the order comes to cease firing—even on one front—a "Cease Production" order will go up and down the factory front. If anything, the Swing Shift will know about it before they tell it to the Marines.

When that hour comes, HELLER clients will not be "frozen." They will be forearmed against every important dislocation that may accrue.

They'll know what the Government owes them, and what to do about getting the money due them. They'll have cooperation on how to prepare their claims. They need not be worried about money with which to pay the previous year's income taxes and renegotiation assessments—to buy machinery for replacement of obsoleted equipment—to purchase civilian goods inventory—to meet payrolls—or cash for any other vital purpose.

Furthermore, HELLER will provide most of the money before payment is received

from the Government. Any forward-looking concern can enjoy this secure position, provided we can help it make money with reasonable safety to ourselves. And companies that qualify can have all the money the situation calls for in an incredibly short time—on a basis that will solve rather than involve their problems.

Under ordinary conditions this cash will be at your disposal indefinitely. You may look upon it as capital money—for in effect that is the purpose it serves.

Frankly, our charges are higher than bank rates. But figured on the basis of end-results, extremely reasonable.

If you would like the facts on how the HELLER Plan can meet the specific needs of your company in relation to this important problem, write, phone or wire. Your inquiry will be treated in strictest confidence.

In 1943 our volume exceeded \$200,000,000

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have many companies that were not in business before the war, but will want to stay in business afterwards. Some are small, others are large.

Numbers of companies have learned to produce things they did not formerly make.

Our population is today not only much greater than in 1918, but has been more dislocated.

Distribution must be radically adjusted to peace. Many wholesalers and retailers have closed since 1940. Market-data handbooks, based on prewar population and income statistics, are sadly out of date. Retailers, wholesalers and jobbers dare not take it for granted that their postwar sales will be the same in character, volume, or direction, as before the war. To plan postwar sales without carefully examining the changed conditions would be a mistake.

Business can't escape change

ANOTHER fact to be considered is that new materials and new products have been conceived and developed during the war. Sellers of old-established products must consider the impact of the new developments: new woods, new plastics, new foods, new medicines, new machines, new processes. The alert business man will keep in close touch with all such trade developments, through his trade papers and trade association, and through the Government.

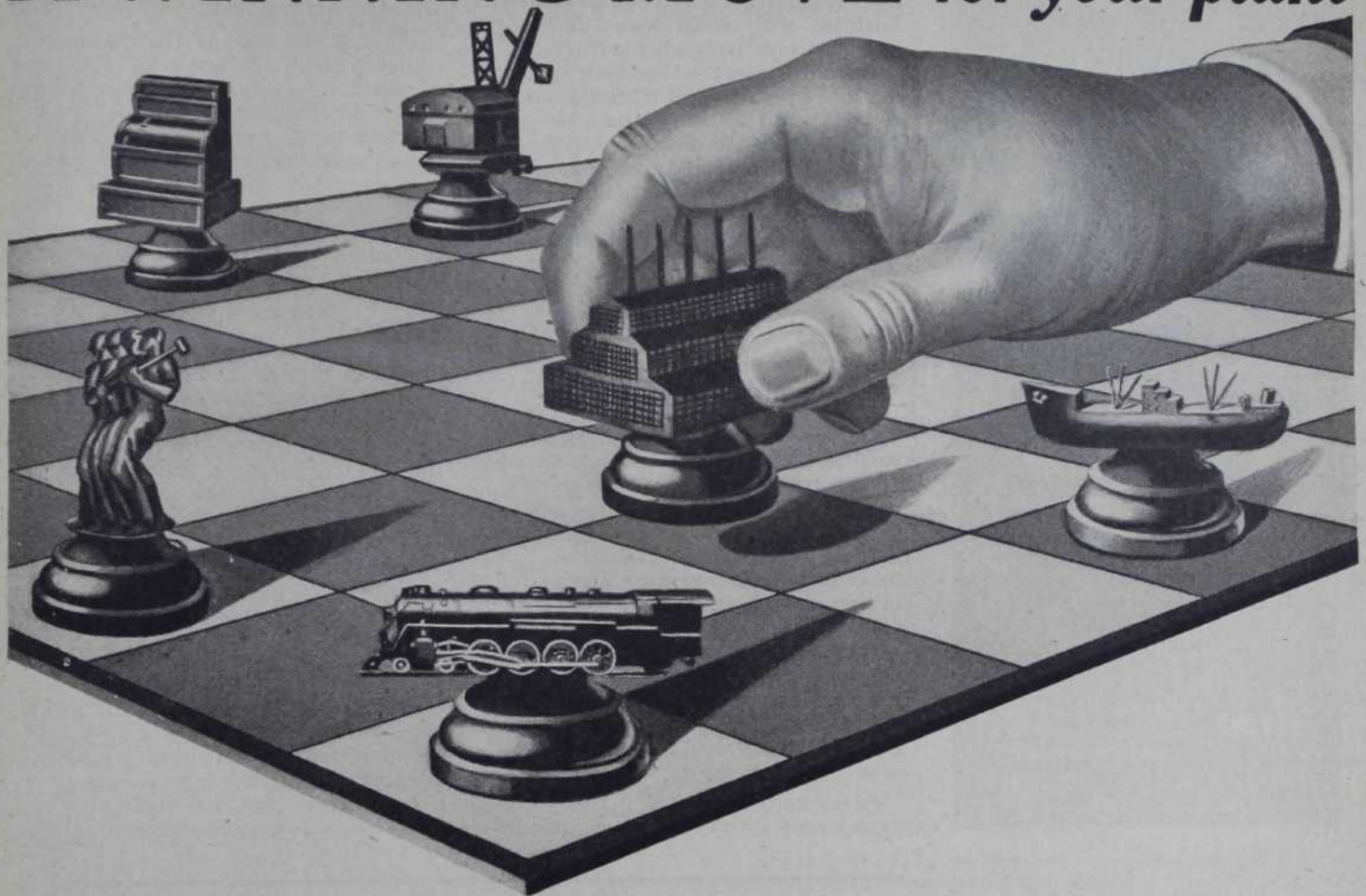
S. Morris Livingston, Commerce Department economist, finds that major wars usually have initiated rapid and extensive changes and have usually been followed by a substantial increase in national income and production, partly because of stimulus to invention.

The role of small business, now so popular in Washington, and of the vet-



"The boss couldn't get a priority on an automatic stamp machine so he put his son to work."

A WINNING MOVE *for your plant*



Locate it where **MARKETS, MATERIALS and MANPOWER**
meet...in New York Central Land

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Somewhere in New York Central Land... somewhere along this railroad's 11,000 miles... markets, materials and manpower meet in exactly the relation your post-war plant will require. Let a New York Central Industrial representative help you find that site.

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This is New York Central Land: 11 states and 2 Canadian provinces

KEY "PIECES" IN A POST-WAR MOVE



MARKETS. A third of all U. S. cities over 100,000, 52% of U. S. buying power are in Central's territory.

MANPOWER. 55% of all U. S. non-farm labor lives and works in the states served by New York Central.



MATERIALS. 75% of the bituminous coal and 81% of the steel in U. S. are produced in this strategic region.

PORTS. 67% of the nation's Atlantic and Great Lakes traffic moves through ports in these New York Central states.



RAIL SERVICE via Central's more than 11,000 miles of modern, efficient, almost gradeless right of way.

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eran operating under the GI Act, also form part of the prospect.

A major lesson which post-1918 experience holds for the business man—not excluding the veteran entering business with a GI loan—during the coming transition period is this:

Good business requires both wise buying and wise selling. Enthusiasm should be tempered with caution. Inventory greed may lead to disaster. Selling-price greed may lead to disappointment. What is important to the national economy is just as important to the individual business man: that the wheels be kept turning.

When labor talks of a guaranteed annual wage it is thinking along the same line.

Careful buying is vital

THE importance of wise buying to profitable business is obvious. In some industries materials used account for 90 per cent or more of operating expenses, while, normally, more than half of the current assets of the typical manufacturer consist of inventory and material in process and often more than a quarter of the total assets. In distributing enterprises, materials are sometimes virtually the only asset of the concern. Dr. Edmund Earle Lincoln's observation on this merits framing in the purchasing department of many a business:

Every dollar saved in the purchasing department is clear gain, while every

dollar lost would require a ten-fold increase in the volume of sales, so far as that dollar is concerned, in order to recover the particular loss, provided the unwise purchase policy were spread over all materials bought!

Dr. Lincoln records that businesses incurred enormous losses in 1920-21 as a result of unsound purchases or the failure to outline a buying policy. The whipsawing of raw-materials prices in those years reflected unsound buying policies and constituted a cause of the heavy business losses. During those two years, for example, No. 1 calfskins ranged in price from 80 cents to 13 cents a pound, middling upland cotton from 43 cents to 11.6 cents, wool from \$1.10 to 38 cents, sugar duty-paid from 21.6 cents to 3.7 cents, etc. Excessive inventories carried in 1919 and 1920 in many instances led to serious financial reverses. Not only manufacturers, but trading concerns fell into the error of the time and, while inventories were being piled up, the rate of turnover was declining.

One of this country's best known economists, Dr. Wesley C. Mitchell, having examined the post-1918 experience, asks whether American business will repeat that story of reaching for big profits on an enormous consumer demand at sky-rocketing prices. If so, he believes, the popular appeal of overall economic planning and control by government will be tremendously strengthened, and the nation may decide to try a bold experiment, not right after the war, but a few years later.

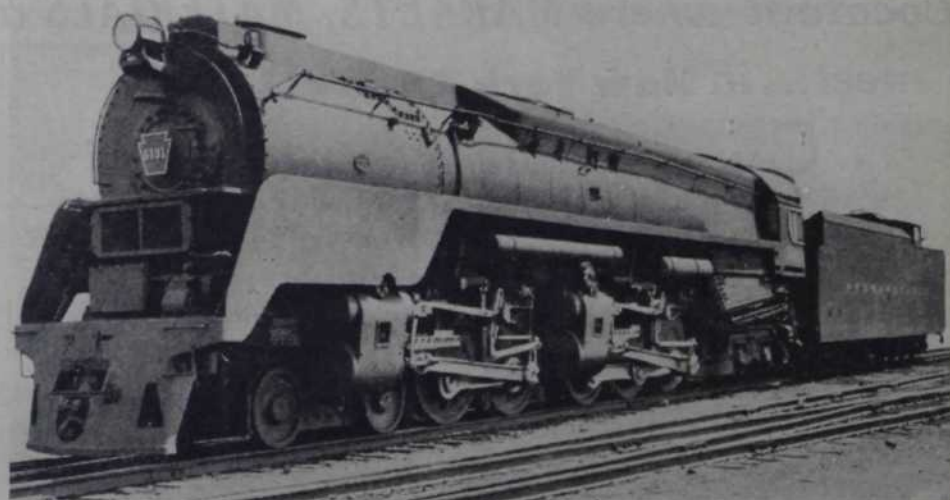
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A new type steam locomotive has been built by the Pennsylvania Railroad. It is capable of drawing a train of 125 loaded cars at speeds exceeding 50 miles an hour. It was designed to develop more power in its working range than any steam locomotive previously built.

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pounds. The locomotive develops a tractive effort of 114,860 pounds. High power is maintained up to 70 miles an hour.

The locomotive might be considered as two engines harnessed together in a rigid frame. Four cylinders are used, of which the front two drive two pairs of driving wheels, and the second two provide power for three pairs of driving wheels.

THE
Carlton

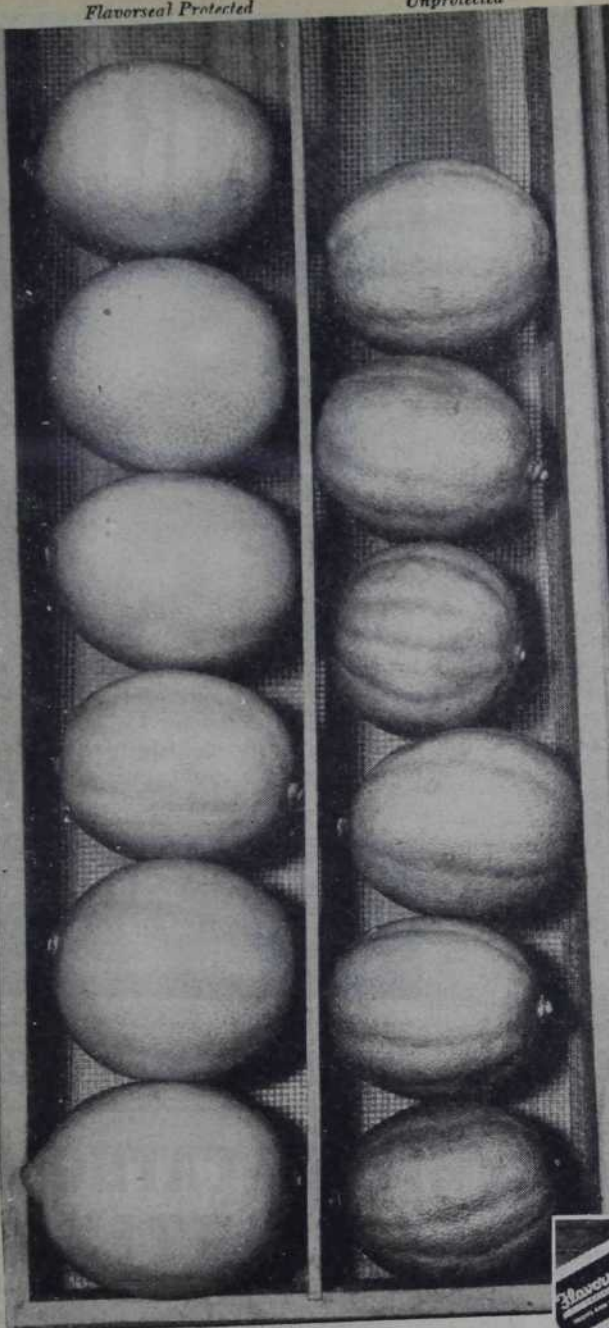


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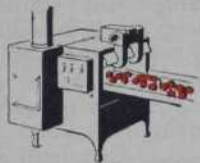
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Hundreds of produce shippers use Flavorseal. For booklet containing a list of their names and brands, and other facts concerning Flavorseal, address Food Machinery Corporation, 24 State Street, New York City 4, New York.

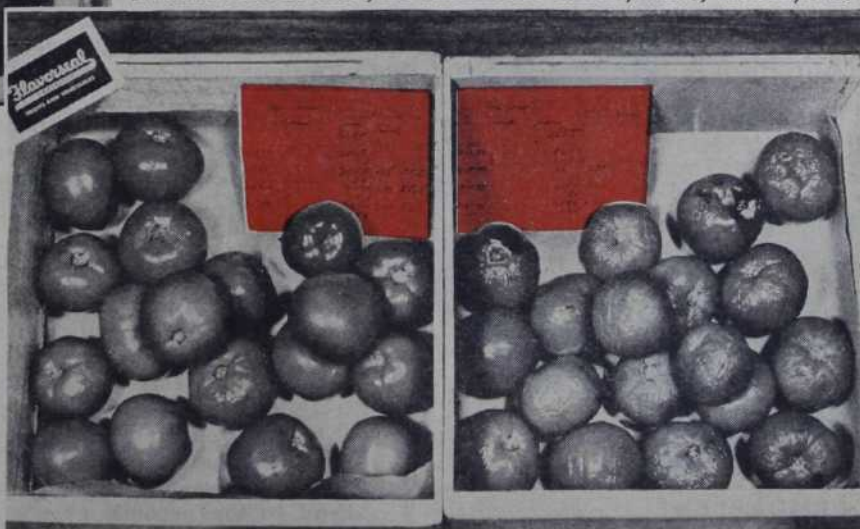


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China Faces the Challenge of Peace

(Continued from page 30)

China has many hands and time means little; but practical China is in a hurry and adopts them.

"Show Me!" China demands of what is new, but it is willing to be shown.

China is a country of contrasts and surprises. It scorns rules but slowly goes ahead. It is a country of self-sustaining geographical units as it is of various dialects, each unintelligible to the others. One province can survive without the others, which explains why Japan's military power has failed to vanquish Chungking. We might not do as well if an enemy held our Atlantic seacoast and the interior as far as the coal mines and steel mills of Pennsylvania.

Uniting the provinces into a strong nation is another problem for the future, more political than commercial. A new constitution is ready for adoption. It will give all parties a voice in government but the differences are deeper. Those now in control speak for the landowners while those dubbed Communists are little farmers who want to own their patches of land. China must solve that problem alone but, being China, it may industrialize without solving it.

China will be Asia's leader

ELIMINATION of Japan as a power in Asia removes the shackles on a giant. China will emerge from the war as the only Asiatic power. The shares of the Soviet Union, Great Britain, the Netherlands and others on that continent are governed from European capitals. China has the force and strength which need only tools and guidance.

To those who do not know China, the confusion of today may seem hopeless. To those who have investments in the country, most of them substantial, and to more whose lives and careers are part of it, the uncertainty is merely part of the give and take of China. The stranger goes into a real Chinese store, pays the first price asked and the owner's feelings are hurt. The oldtimer argues over the price. An 80 per cent reduction may be expected, and the owner has the joy of bargaining and the satisfaction of matching wits with a worthy customer.

The men and women who know China are eager to go back, confident they and China can face the changes and speed ahead to the nation's greater destiny. They have organized the China-American Council of Commerce and Industry in New York City and San Francisco with Thomas J. Watson as chairman. The Shanghai *Evening Post and Mercury* is now published in New York with an edition in Chungking. Those who know China are confident of the future.

Starting China toward the full capacity of its resources will call for many

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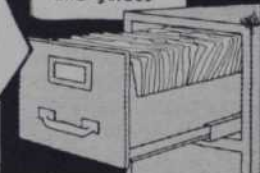


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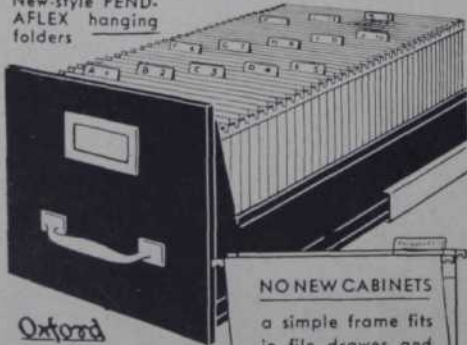
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things, from farm seeds and factory artisans to overland transportation and machinery of all kinds. Affording that help will be a fitting culmination to a century of unchanging American foreign policy.

In that part of the world, American policy always has been aggressively international. The Chinese have not resented it as they have, and still do, resent the policies of other nations. Largely due to American interference, China is one country today and not a patchwork of European and Japanese colonies.

American trade has grown

SINCE the New England trading ships first sailed to Canton in 1784, trade has grown. In prewar years, wood oil, bristles, raw silk, cotton, wool, cottonseed oil, needlework and wolfram led the long list of purchases in China by the United States. In return, China bought metals, machinery, tobacco, chemicals, tools and ships.

Ties of sentiment and years of unbroken friendship join the two countries. As in the past, the United States will strengthen the efforts of that country's leaders to raise the living standards of its millions, to foster education and health and to abate the ravages of floods and famines. Less altruistic but just as essential and beneficial to the business and commerce of both countries is the material help which China needs—markets for its products, a stable currency, heavy industry, machinery and tools, overland transportation, ships, skilled technicians and a thousand other items.

A great future awaits China and a vast market awaits the United States if it can help in materials and advice. That China can be industrialized is beyond argument once the obstacles and hurdles to cooperation have been frankly exposed.

Business must do the job

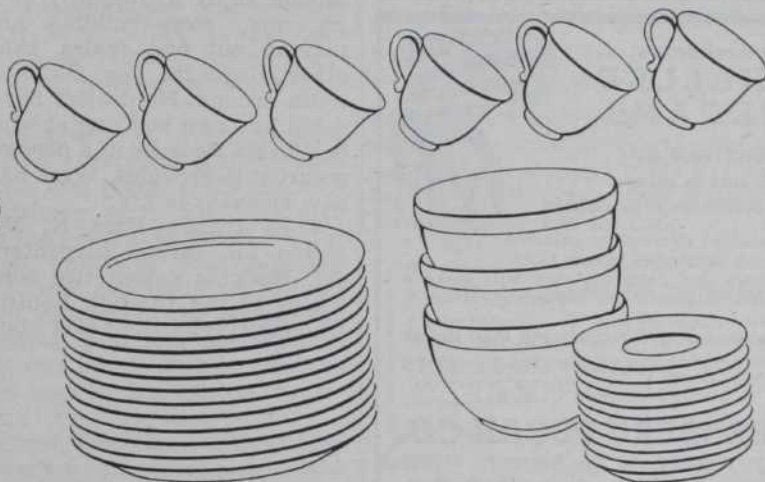
TWO such friendly nations will have little difficulty in clearing the road to the future. Dreamers can vision the castles in the skies but practical business must follow a rocky road to reach the goal. Not dreams but hardboiled realities will win this fight.

Over the years and despite the envies and intrigues of others, the United States has been a bulwark for China and the end of the war in the Pacific will open the door for both countries to reap the rewards. China must be strong to take its destined place in the world council of nations and a strong and sympathetic China will be the best and cheapest insurance for America's policies of peace in the Pacific.

The United States has helped China in the past, has been its strongest supporter in this war and is ready to help in the future. But we must know the terms and China must open the door so American business can enter safely.

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To LOCATE a PLANT IN NORTH CAROLINA
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MANUFACTURING AND DISTRIBUTION COSTS: Substantial savings, placing such a manufacturer in a most advantageous competitive position, are indicated.

RAW MATERIALS: North Carolina leads America in the production of primary kaolin and feldspar. High grade quartz (it was selected because of its superior quality for the manufacture of the world's largest observatory telescope lens) is abundant in North Carolina.

LABOR: North Carolina labor is noted for its adaptability. Typical of the experience of manufacturers who have moved their plants to North Carolina is that of the newcomer who wrote, "It was necessary for us to employ inexperienced people and train them. We found that these people were easily trained and showed a high degree

of enthusiasm and interest in their work. They have proved to be efficient workmen, steady and reliable. We have had practically no absentee problem. All our workers are exceptionally loyal and vitally interested in the welfare of our company and organization."

TAXES: A sound and stable tax structure.

TRANSPORTATION: Raw materials are close by. The entire Southeastern area is adequately served, by rail and truck, from North Carolina. Substantial savings in freight will be reflected in distribution costs.

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Buy More WAR BONDS

Secure Old Age, Industry Style

(Continued from page 24)

morale, increased production, and elimination of superannuated workers who slow down business.

Pensions make possible epics of sunset content. Take the case of Mirton R. West of Braman, Oklahoma, now retired on a substantial old age benefit provided by a large Middlewestern company. West's hobby has always been woodworking. Busy at his job, he could seldom enjoy it. Recently he took over an empty store building, and is now turning out fine chairs, cabinets and other furniture for Oklahomans for miles around. He doesn't have to work—but he's now working at what he likes best to do. Because of a pension, and the security it provides, West has found a new richness in life.

Then there's Ezra N. Hudgins of Norco, La., former carpenter for Shell Oil. Hudgins raised two sons—one of whom he put through Louisiana State University—but he never could indulge

gether a local history and collected some 30,000 stamps.

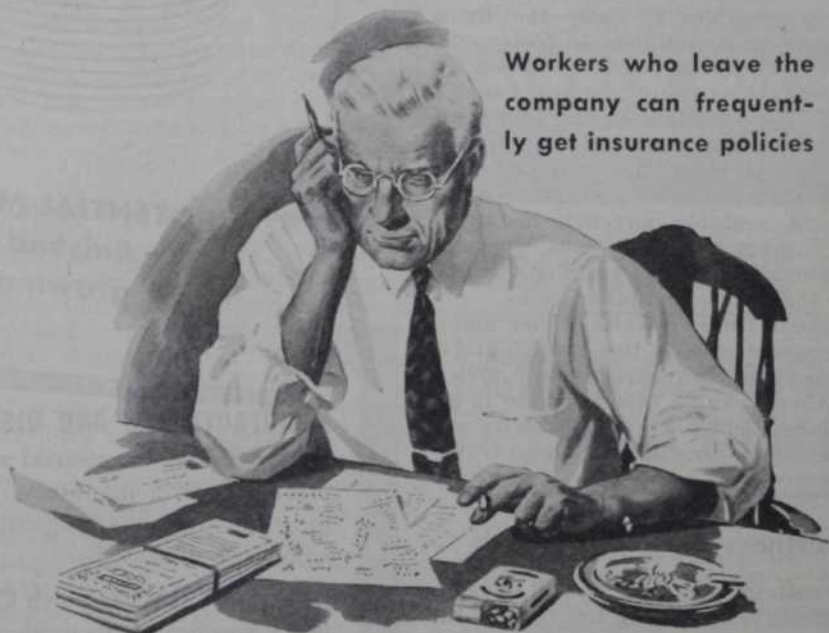
Such stories can be collected by thousands. One Chicago woman pensioner has opened a neighborhood beauty shop, others have started other businesses which interest them—and where they can keep any hours they please.

"A pension isn't a death knell, but a new lease on life," one pensioner told me. "Financial security and a good rest have made me feel ten years younger."

The swelling tide of workers' social security is a most significant development. As a movement away from government control of such activities—with inevitable top-heavy bureaucracy—it is a long step in the right direction. Moreover, workers' benefits sponsored by industry itself present a potent defense against the familiar charge that American industry lacks social conscience.

Protagonists of social security plans point to manifold advantages. As an extra compensation device, for example,

Workers who leave the
company can frequently
get insurance policies



his longing to travel. Just before the war he retired on an \$86 monthly pension, plus \$17,700 from Shell's Provident Fund.

Hudgins bought a trailer, hooked it on the family car, and, with his wife, jaunted off to Florida, California, and half the other states. When war broke out, he became secretary of his local draft board. He is working also with a special committee to obtain employment for discharged veterans. He gives half his time to public service.

L. D. Dorchester, Freeport Sulphur Company pensioner of Velasco, Texas, recently served—at 84!—as chairman of Velasco's War Bond drive. Through the town's Kiwanis Club, he's now needling the city to see to it that life-saving facilities are provided on a nearby beach. Meanwhile, he's gotten to

pensions are anti-inflationary, simply because the extra compensation is held in trust. In another aspect, when the war ends, such old age benefits provide both a humanitarian and sensible method of weeding out overaged personnel held on by the present emergency.

Right now at least half our estimated population of 65 and over—an estimated 4,000,000 people—is dependent on others. High individual income taxes and high cost of living will probably make millions more dependent in years to come. Industry has the choice of relegating its own workers to a condescending, half-contemptuous public charity, or caring for them with dignified, orderly programs of its own. Already American business has demonstrated it is rapidly awakening to its responsibility—and its opportunity.

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Production speed-up, congestion, large inventories, untrained employees, shortage of manpower are rapidly increasing fire losses. Check over your property today and help the War effort by extinguishing fires before they have time to spread.

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Later on when materials are more plentiful we will need many salesmen to fill up territory. Register your name and address today for one of these distributor openings.

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Dayton 1, Ohio



Fyr-Fyter

Builders Report for Duty

(Continued from page 26)

struction fluctuates according to the general business picture.

Despite its size, construction cannot generate activity entirely by its own efforts. Neither business firms nor people decide to build unless it suits their purpose. This means that in almost every case the economic weather must be good. If individuals are reasonably sure of continued employment and business firms are sure of a demand for their services or products, building occurs. Public construction follows the same pattern.

There are plenty of public policies that will help construction to balance itself. In the first place, since the construction volume is so susceptible to changes in the general business level, it follows that anything that improves general economic conditions will stimulate it. Thus revision of the federal tax structure would help. One specific proposal along this line is that present tax restrictions on venture capital be relaxed.

Continuation of research activities by federal agencies to develop new methods of construction and new materials would also be of great assistance. Then there is the matter of building codes. If the federal agencies that want to see construction forge ahead would induce local governments to adopt less burdensome regulations on building they would confer a real boon on the industry. Finally, there is plenty that some of the



November, 1944

Engineer

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93

P E N I C I L L I N



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The Cleaver-Brooks installation in Chas. Pfizer & Company's modern penicillin plant in New York consists of two 300 H. P., 200 lb. working pressure, CLEAVER-BROOKS Steam Generators. These units are compact, factory-assembled, oil-fired, and operate at a high thermal efficiency. Automatic operating features and complete combustion assure cleanliness and lowest operating and maintenance cost.



Science discovered it. Research developed it. Exigencies of war forced volume production. Penicillin was so urgently needed by the armed forces our government requested increased facilities for its manufacture as rapidly as was humanly possible.

And within a remarkably short space of time, the large modern penicillin plant of Chas. Pfizer & Co. Inc., manufacturing chemists, was built, equipped and in full operation producing large quantities of this vitally-needed drug. Cleaver-Brooks' part in the

achievement was the installation of two Cleaver-Brooks Steam Generators of the type successfully used in hundreds of other modern, progressive manufacturing plants. The Company wrote us:

"The very short time in which we were able to complete the plant was due, in no small measure, to the prompt deliveries made by suppliers such as yourselves, which aided us in meeting the needs of our armed forces. We want you to know that we recognize and appreciate the important part you played in helping us to make this excellent record."

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war agencies can do to help the industry over the adjustment period ahead.

For its part, WPB has already signified its intention to give plants producing essential component materials for building every possible break in the re-conversion process. This means that, wherever there is a choice between plants in making cutbacks in military production, the one that can turn back to the production of urgently needed products such as refrigerators, plumbing fixtures, or electrical equipment will be demobilized first. In this way, the pipe lines from building material producers can be filled up so that there will be no doubt that the component parts will be available when needed.

Still another matter that is worth more than passing interest is the overhang of war housing units and war plants that the Government has built. According to the last official count, the Government now owns 576,404 family units and 164,734 dormitory units and demountables. If all these facilities were pulled together in one place enough housing would be provided to accommodate more than the entire population of Philadelphia. However, there is every assurance that these projects will be handled or disposed of in such a way as to have practically no effect on the post-war demand for private construction. For one thing, all the dormitories and a large number of the family units are of temporary construction. The law relating to the war housing program requires that all temporary units be removed within two years after the end of the war emergency.

All in all, the construction industry is ready to do its part. It will have all it can do to pull itself together and take up the slack caused by the war. It will need the understanding of government agencies, of Congress, and of other businesses. Most of all it wants to stop being a guinea pig.

Crash Proof Gas Tanks

ONE product of war that promises to go to work for peace-time industry is the rubber gasoline tank. Thick, bullet-sealing tanks for airplanes have been used since the early days of the war. Now, in addition to their prime purpose, these tanks are found to reduce gasoline leakage due to other causes.

Non-combat airplanes and later trucks and buses may use a modification of the bullet-proof tank. The rubber cells would be much lighter and simpler, being actually rubber bags or bladders tailored to fit into the tank space.

These rubber cell gasoline tanks will protect fuel supply against many leaks, and also, being flexible, resist the effects of minor crashes which in airplanes often split or buckle the tank. For the present the bladder-type cells will be custom built for airplanes, according to James S. Pedler, manager of the aeronautical division of B. F. Goodrich.

Capital Scenes... and What's Behind Them



Do pants make the man?

NEVER mind his name just now. He is one of the great steel makers of the world. At one time he was the head of the Tata company in India which demonstrated that, under proper leadership, the Indian workman can hold his own with any man. He has a high opinion of the Indian generally, except for the half-starved coolies of the south. But he is not so sure that Mahatma Gandhi is anything more than an agitator:

"He might lead 'em into more trouble if he ever got into power. That is no consolation for the British, of course. Nor for us, because we have taken a hand in the Indian game."

The steel maker said that Gandhi, when he first knew him, was a fop—dressed by the best tailors on Saville Row in London. Then Gandhi got into Indian politics and took off his pants. The steel maker said he finds it difficult to revere a leader in a G-string. He thinks the British feel the same way.

Part of the egg is bad

NOTE that this correspondent is too much of a gentleman to refer to it as the "Dumoaks" Conference, as the economy-minded cable correspondents do. That abbreviation is nothing short of repulsive. But the judgment of the floor at the Press Club is that only a start was made at Dumbarton Oaks.

The conferees, it is true, agreed on 90 per cent of the problems placed before them. The acidulous gentry at the P.C. observe that, if you break nine of the Ten Commandments, the worst that happens to you is alimony. If you break the tenth, folks bury you in a pine box.

Nutgalls from oak trees

THEIR judgment may be faulty, because the conferees told them nothing officially except that God is Love and Green Grow the Rashers, Oh! But they think that whatever was done or was not done under the Oaks will now be submitted to other experts and then to volunteer advisers and the statesmen and then to the Big Three; that De Gaulle may do a little work on it and that, finally, the Senate and House will operate a bit. If anything happens it



may not be made known to the public short of a year. A simpler method, they think, would have been to admit that the job will not be easy to finish. Then the conferees could have eaten their last round of Chesapeake Bay oysters and gone home. Six oysters to the plate instead of the old-fashioned dozen. Manpower shortages have elevated the oyster to the social rank of the large red caviar.

Aces back to back

GOSSIP is that Stalin does not care the value of a czarist ruble whether he makes the Big Third at another powwow of the Big Three. This seems to be based on nods and winks. Stalin is said to feel that, at the last conference he attended, he was exposed to a lot of elevating sentiments and no realism at all. He's betting 'em higher than a cat's back.

He will take the Baltic states and what parts of Germany and Poland he wants and nobody can do anything about it. He will not consent to a joint control of postwar Germany. He will make what arrangements he pleases about reparations and postwar commerce with that part of Germany he takes. He will sign no paper which gives any other country a chance to vote him around.

No one really attempts to deny that. No one will call his hand, either.

Returning stolen goods

THE robbed countries—France, Holland, Belgium, et al.—have their own plans for the return of the properties stolen by the Germans, which should be of interest to the American companies and individual investors.

The Germans in most cases observed the forms of law in seizing these properties. They paid for them with occupation marks which were valueless. Then they transferred titles in long chains, until not all the lawyers in Philadelphia could untwist the skein. The unfortunate original holders dared not refuse to sell.

Instead of spending interminable years in court, the new plan is simply to retransfer all the stolen properties to the original owners. Then the Germans would be invited to prove honest ownership if they could. That's De Gaulle's plan, at least. When France has



her own government no one can keep him from putting it through. He mighty near has his government now.

But in the meantime

THE German looters have transferred many of their so-called titles to the stolen properties to holders in other countries. Some of these holders are nationals of the occupied countries; some are citizens of the United States and of various South American countries. If the due, formal and routine process of law were followed, the innocent original holders would not have the chance of the ice cream cat in an oil fire. One particular set of stocks has passed through holders in Paris, New York, London, Switzerland, and is now in possession of some anonymous hands in Argentina.

The twilight of profits

JUNIUS WOOD, known in 30 countries as a doubter and correspondent—you've read him in NATION'S BUSINESS—comes in with a story.

Thirty-five years ago George Alexander Hughes, newly broke in a small business, borrowed tools and shop room from a friend in Chicago, where Mr. Wood has harbored for years. He made the first electric cooking stove. He sold it, made more stoves and enlisted \$50,000 in risk capital. Ultimately he sold out for \$850,000.

His backers got \$17 for every dollar they put in.

Nowadays most of his profits would be swallowed in taxes. The big corporations, with millions of dollars sweating to be at work, might do something today with a Hughes' idea, but the little man could not. The remainder of Mr. Wood's statement is off the record.



When the war is over

THIS correspondent has been listening to a great deal of moaning about the troubles we will have when the war ends. He finds it difficult to work up a chill. Other countries may be in desperately tough spots, and their pains may recoil on us ultimately, as they did in 1929.

But in the meantime—

The Standard Oil Company in 1943 alone devoted more than 2,500,000 man-hours to war research and development. Discoveries were made which will be of immense value to American buyers. The radio business found so many new things that today's radio, from broadcasting to receiving, will be mostly out of date. War silence is still enforced on practically all of them. There are more than 1600 companies in electronics. An American business man will be able to lift his receiver and talk to any country that has as many telephones as a small

Another Reason for remembering
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These
Ohmer Cash Registers
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able for all lines of busi-
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American city. The new alloys will not only give us finer metal gadgets than any country ever had, but will be in demand wherever in the world a buyer can get a backer. If the statesmen do not get in the way—and maybe they won't be let—we may take week-end jaunts to Monte Carlo in American planes. In the air-conditioned kitchen of tomorrow a housewife will be able to do much of her work by simply pushing buttons without moving from her handsome plastic chair. Some day when she feels lively she can cook a full meal for next summer's visitors, pop it in the freezer, and warm it up six months later, fresh.

Tomorrow's taxpaying

VICENTE VILLAMIN is an expert on the commerce and politics of the Philippine Islands. He has lived in this country long enough to have attained a fairly objective point of view. He writes:

"The Orient is wondering whether the United States is going to continue her interest in that region after the war. If she does, the Orient will line up with her. If she doesn't, it will seek new alignments."

Russia, China and India, he suggests, are a contiguous area with products complementing each other's needs.

In free translation that seems to mean that the Oriental countries will want to borrow money and make favorable trade agreements. Or else. China suggests a \$10,000,000,000 loan, Korea wants some, India and Burma and the rest of the Orient will want some. Most may be in the form of goods. They will want what we make and can pay in part with goods of their own. Even Japan will want to borrow. At this moment that seems unreal.

Bankers may carry the load if their loans can be secured.

Hard eyes in Congress

MEANWHILE there are indications that some members of Congress will try to call a halt on loose generosity once the war is over. No particular evidence to support that statement at present, but a good deal of subdued groaning on Capitol Hill. In response to a question, D. W. Bell, Under Secretary of



the Treasury, states that on June 30, 1944, our national debt, including obligations guaranteed by the Treasury but not owned, amounted to \$202,626,000,000. A rough approximation of the debts our allies owe, reduced to dollars, would be: United Kingdom \$81,648,000,000; Canada, \$11,267,000,000; Australia, \$1,350,000,000; Union of South Africa \$2,000,000,000.

Right from the Army's mouth

IN the Pentagon it is said that, no matter what happens to Germany or when, there will be no demobilizing before the

summer of 1945. A few soldiers may be sent home for reasons of age or family affairs or outstanding gallantry. But the main body of troops will be held in Germany and instructed not to fraternize if they do not want the top kick to burn down their ears.

Reason why?

Because this time the military chiefs think that Germany must be convinced that she got the most drastic drubbing since she first crawled out of the woods. There will be an Allied military post in every German village and town. The Germans will be ordered to handle their own affairs, but to handle them the right way or do a hitch in the hoosegow. They will be given no chance to build up a tradition that they won most of the war, as they did after the First War.

Even if the civilian heads of the Allied Governments do not agree with this program, it will go through. Because the several very competent generals now commanding the armies could fix things up so that it would not be possible to get the armies out until the Germans had learned their lesson.

Not soft and not hard

IN the opinion of some of those who should know the plans for the future the peace with Germany will not be punitive. Nor will it be soft.



"The Allies," say these men, "will merely say to Germany: 'you got yourself into this mess. Now get yourself out.'"

No one will try to make a farming state out of Germany. No one ever thought of such a thing, anyhow. Morgenthau was misunderstood. But the stolen goods will be retrieved as far as possible. If Germany wants to open a factory and can get the money or the machinery she may go ahead, so long as no heavy tools are made. If Germans are hungry they may be given a little food; that is doubtful; but they must pay in some way, even if they turn in their silver watches. They welshed after the First War. Oddly enough, as kindly and forgetful as the Americans and British are, this time they will remember.

If we do not there will be a Third War as soon as the Germans can breed for it.

The Japs won't quit

THE shooting will stop in Germany sometime in 1945. That continues to be the prophecy of some of the staff pessimists.

"The Nazis won't quit. They can't. They have no place to quit to. But the rest of the Germans will get religion by that time. It may take us a year or so to clean out the pen."

Same people say the Japs won't quit at all. As a military operation the Jap war might run into 1947. Or until the Allies get sick of killing. Phew!

BUT NO "TIN HORN" PEACE...

Yes, we'll shed tears . . .
We'll wave handkerchiefs . . .
We'll slap backs and shake hands and make speeches when they come home again.

But this time tears and handkerchiefs and speeches won't be enough.

This time it isn't a "brass-band" war . . . and it isn't going to be a "tin-horn" peace.

Last time, fighting men sailed at noon from crowded docks where thousands cheered. This time, they vanish in the night.

Last time, everybody sang "Over There," "Keep the Home Fires Burning," "Pack Up Your Troubles in Your Old Kit Bag." This time, there are no great war songs the people sing.

Last time, a war was fought to end wars, to make the world safe for democracy. But war didn't end, the world wasn't made safe for anything, and many a doughboy marched from a parade line into a bread line.

But this time . . .
Fighting men have learned that the great words "Victory," "Peace," "Freedom" are meaningless

unless coupled with the humbler, work-a-day words "opportunity," "jobs," "wages."

This time . . .
They know that if war can employ the full energies of all our people . . . if war can give birth to new industries . . . so can peace.

This time . . .
When they come home, they will be looking for the opening of a door . . . the opening of a thousand doors to new jobs, new careers, new explorations, new homes, new futures.

It is the purpose of this company to convert its vast productive capacity from war to peace as quickly as possible. To double its production of refrigerators and electrical appliances, to more than double its greatest production of motor cars.

Only in this way can we give to those who have fought and worked to preserve it . . . a strong, a vital, a growing America where all men and women will have the freedom and the chance to make their dreams come true.

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R. J. Reynolds Tobacco Co., Winston-Salem, N. C.



THEY'RE DESPERATE FOR THIS GAS IN CHINA, CHARLIE. JAP INTELLIGENCE MUST KNOW IT TOO... THE AIR'S CRAWLING WITH ZEROS

DO OUR BEST, CHIEF



ZEROS! A FLOCK OF 'EM. ONE TRACER BULLET'LL EXPLODE THIS CARGO FROM HERE TO CHINA!

The Zeros start to dive. "I was a pigeon," Sharkey said later. Visibility unlimited . . . no cloud-cover to hide in. He could not try to shoot it out with the Nips, because the transport carries no guns for fighting back. It's dive—or else! And transports aren't built for diving.



I'VE GOT TO TAKE THE CHANCE!

What's that on the horizon? A forest fire?—and Sharkey spots it. A smoke-screen to hide in . . . but leaping flame too. Bad place to fly with a cargo of 100 octane gasoline.



SHARKEY TO BASE, FLYING BLIND IN FOREST FIRE... AUNT NELLIE'S* ON TOP!

*PILOT SLANG FOR JAP FLIERS

Into the inferno. Flying blind! Fire all around him. Mountain walls on each side. The Japs above—with itchy trigger fingers.



I NEVER THOUGHT YOU'D MAKE IT, CHARLIE. TERRIFIC!

TERRIFIC ENOUGH TO REMIND ME I WANT A CIGARETTE NOW. BOY, GIVE ME A CAMEL, QUICK!

The back of his jacket isn't just fancy decoration. That's a message in Chinese—very useful if he's forced down—telling the natives to aid him.

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—that's T for Taste and T for Throat. Try Camel's mildness, coolness, and kindness on your throat. And the full, rich flavor of its wonderful blend of costlier tobaccos on your taste. Who knows? . . . Camels may suit your "T-Zone" to a T. You'll never know—till you try them! Now?